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File 347:JAPIO Nov 1976-2004/Jul(Updated 041102)
         (c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200470
         (c) 2004  Thomson Derwent
File 348:EUROPEAN PATENTS 1978-2004/Oct W04
         (c) 2004 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20041028,UT=20041021
         (c) 2004 WIPO/Univentio

Set     Items   Description
S1        516   AU=(UHLIK C? OR SINHA N? OR CAI Z? OR UHLIK, C? OR SINHA, -
            N? OR CAI, Z?)
S2         71   S1 AND (WIRELESS OR MOBILE OR CELLULAR OR PORTABLE)
S3          4   S2 AND SESSION/AB
```

3/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015356407 **Image available**
WPI Acc No: 2003-417345/200339
XRPX Acc No: N03-332758
Communication session identifier generation method for mobile **computing device such as laptop, involves enabling mobility management within point-to-point communication session between base station and network access server**
Patent Assignee: CAI Z (CAIZ-I); SINHA N (SINH-I); UHLIK C (UHLI-I)
Inventor: **CAI Z ; SINHA N ; UHLIK C**
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030028649	A1	20030206	US 2001919777	A	20010731	200339	B

Priority Applications (No Type Date): US 2001919777 A 20010731
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030028649	A1		18	G06F-015/16	

Abstract (Basic): US 20030028649 A1
NOVELTY - A communication **session** identifier is selectively generated to uniquely identify communication **session** from multiple communication sessions supported by a network access server to enable mobility management within point-to-point communication **session** between a base station and the network access server.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) recorded medium storing communication **session** identifier generation program; and
(2) communication **session** identifier generation apparatus.
USE - For delivering enhanced data services to **mobile** computing devices such as laptop computer, personal digital assistant (PDA), palmtop and **mobile** phone in **wireless** communication system e.g. **wireless** local loop (WLL) system, digital or analog **mobile cellular** systems and personal handy phone (PHP) system.
ADVANTAGE - Mobility management within point-to-point communication **session** between the base station and the network access server eliminates generation of zombie sessions. The data services delivered to the **mobile** computing devices are enhanced.
DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the **wireless** communication system.
pp; 18 DwgNo 1/11
Title Terms: COMMUNICATE; SESSION; IDENTIFY; GENERATE; METHOD; **MOBILE** ; COMPUTATION; DEVICE; ENABLE; **MOBILE** ; MANAGEMENT; POINT; POINT; COMMUNICATE; SESSION; BASE; STATION; NETWORK; ACCESS; SERVE
Derwent Class: T01; W01
International Patent Class (Main): G06F-015/16
File Segment: EPI

3/5/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015238853 **Image available**
WPI Acc No: 2003-299779/200329
XRPX Acc No: N03-238536
Data networking protocol for wireless **communication system has mobility management attribute value pairs to facilitate exchange of mobility information between subset of network elements**
Patent Assignee: CAI Z (CAIZ-I); SINHA N (SINH-I); UHLIK C (UHLI-I)
Inventor: **CAI Z ; SINHA N ; UHLIK C**
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030026220	A1	20030206	US 2001919790	A	20010731	200329 B
			US 20013165	A	20011114	

Priority Applications (No Type Date): US 2001919790 A 20010731; US 20013165 A 20011114
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030026220	A1		12	H04Q-007/00	Cont of application US 2001919790

Abstract (Basic): US 20030026220 A1

NOVELTY - Several attribute-value pairs (AVP) are selectively employed by network elements to define parameters of control command used to establish a communication **session** between network elements. The AVPs includes mobility management AVPs to facilitate exchange of mobility information between a subset of network elements of the data network participating in communication **session** .

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) machine readable medium storing data networking protocol incorporating program; and

(2) communication signal comprising data networking protocol.

USE - For **wireless** communication system e.g. personal digital assistant (PDA), laptop computer, **cellular** phone and personal handyphone (PHP) communication system.

ADVANTAGE - Facilitates delivery of enhanced data services in **mobile** , **wireless** communication environment.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the **wireless** communication system.

pp; 12 DwgNo 1/11

Title Terms: DATA; PROTOCOL; **WIRELESS** ; COMMUNICATE; SYSTEM; **MOBILE** ; MANAGEMENT; ATTRIBUTE; VALUE; PAIR; FACILITATE; EXCHANGE; **MOBILE** ; INFORMATION; SUBSET; NETWORK; ELEMENT
Derwent Class: T01; W01
International Patent Class (Main): H04Q-007/00
File Segment: EPI

3/5/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014878199 **Image available**
WPI Acc No: 2002-698905/200275
XRPX Acc No: N02-551053

Resource management e.g. for wireless **data communication system, involves establishing** wireless **communication session with remote user terminal with** wireless **communication session has associated with it session time limit**

Patent Assignee: ARRAYCOMM INC (ARRA-N); DAHLBY D C (DAHL-I); FLEISCHER S D (FLEI-I); TROTT M D (TROT-I); UHLIK C R (UHLI-I)
Inventor: DAHLBY D C; FLEISCHER S D; TROTT M D; **UHLIK C R**
Number of Countries: 101 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200276119	A1	20020926	WO 2002US8945	A	20020320	200275 B
US 20020147019	A1	20021010	US 2001813386	A	20010320	200275
EP 1371241	A1	20031217	EP 2002721550	A	20020320	200402
			WO 2002US8945	A	20020320	
KR 2003085021	A	20031101	KR 2003712242	A	20030919	200418
AU 2002252476	A1	20021003	AU 2002252476	A	20020320	200432
JP 2004524756	W	20040812	JP 2002573455	A	20020320	200453
			WO 2002US8945	A	20020320	

Priority Applications (No Type Date): US 2001813386 A 20010320
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200276119	A1	E	40	H04Q-007/20	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
US 20020147019 A1 H04Q-007/20
EP 1371241 A1 E H04Q-007/20 Based on patent WO 200276119
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
KR 2003085021 A H04B-007/14
AU 2002252476 A1 H04Q-007/20 Based on patent WO 200276119
JP 2004524756 W 59 H04Q-007/36 Based on patent WO 200276119

Abstract (Basic): WO 200276119 A1
NOVELTY - The method involves a communication device establishing a **wireless** communication **session** with a remote user terminal. The **wireless** communication **session** has associated with it a first **session** time limit. The communication device detects a **session** renewal. The communication device alters the **session** time limit in response to detecting the **session** renewal.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an apparatus for managing communication channels in a **wireless** communication system.
USE - For providing resource management in **wireless** data communication system
ADVANTAGE - Establishes finite duration **session** between user terminal and base station and then delays or hastens lifespan of **session**
DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of a **wireless** system, according to an embodiment of the invention.
pp; 40 DwgNo 1/7
Title Terms: RESOURCE; MANAGEMENT; **WIRELESS** ; DATA; COMMUNICATE; SYSTEM; ESTABLISH; **WIRELESS** ; COMMUNICATE; SESSION; REMOTE; USER; TERMINAL; **WIRELESS** ; COMMUNICATE; SESSION; ASSOCIATE; SESSION; TIME; LIMIT
Derwent Class: T01; W01
International Patent Class (Main): H04B-007/14; H04Q-007/20; H04Q-007/36
International Patent Class (Additional): H04B-007/00; H04L-012/28
File Segment: EPI

3/5/4 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00942008 **Image available**
METHOD AND APPARATUS FOR RESOURCE MANAGEMENT IN A WIRELESS **DATA COMMUNICATION SYSTEM**
PROCEDE ET APPAREIL POUR LA GESTION DE RESSOURCES DANS UN SYSTEME DE COMMUNICATION DE DONNEES SANS FIL
Patent Applicant/Assignee:
ARRAYCOMM INC, Suite 200, 2480 North First Street, San Jose, CA 95131, US , US (Residence), US (Nationality)
Inventor(s):
UHLIK Christopher Richard , 345 Love Lane, Danville, CA 94526, US,
TROTT Mitchell D, 216 Central Avenue, Mountain View, CA 94043, US,
DAHLBY Douglas C, 3999 Wildflower Common, Fremont, CA 94538, US,
FLEISCHER Stephen D, 181 Thompson Square, Mountain View, CA 94043, US
Legal Representative:
CALDWELL Gregory D (et al) (agent), Blakely, Sokoloff, Taylor & Zafman, 7th Floor, 12400 Wilshire Blvd., Los Angeles, CA 90025-1026, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200276119 A1 20020926 (WO 0276119)
Application: WO 2002US8945 20020320 (PCT/WO US0208945)
Priority Application: US 2001813386 20010320
Designated States:
(Protection type is "patent" unless otherwise stated - for applications

prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: H04Q-007/20
International Patent Class: H04B-007/00; H04B-007/14
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 8281

English Abstract
A method and apparatus for delaying or hastening the "lifespan" of a **session** in response to detecting (or casing) a **session** renewal. A "**session**," refers to a particular user terminal's right of access to one or more communication channels to exchange data with the base station (110) (and other devices/networks (116) coupled thereto). A **session** renewal refers to an event or condition that delays the lapse/expiration of the **session** lifespan (i.e., causes an earlier lapse of the **session**). In the embodiment, a **session** represents the period of time in which a user terminal (108) is registered with a base station (110) and can thus access or attempt to access one or more **wireless** communication channels to exchange data with the base station (110). Therefore, a **session** "lifespan" represents a length of time subsequent to which, upon lapse of the lifespan, the **session** terminates and a remote user terminal (106/102) must re-register with a base station (110) to establish a **session** and to gain access to one or more **wireless** communication channels in which data may be exchanged between the user terminal (102/106) and the base station (110).

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File 348:EUROPEAN PATENTS 1978-2004/Oct W04
         (c) 2004 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20041028,UT=20041021
         (c) 2004 WIPO/Univentio

Set     Items   Description
S1     358938   MOBILE OR PORTABLE OR WIRELESS? OR CELLULAR
S2      37768   BASESTATION? ? OR BASE()STATION? ? OR ACCESS()POINT? ? OR -
             POINT(1W)ACCESS
S3     403107   NAS OR SERVER? ? OR RADIUS OR ISP OR ISPS OR (INTERNET OR -
             NETWORK OR COMMUNICATION? ? OR TELECOMMUNICATION? ?)(2W)PROVI-
             DER? ? OR SWITCH OR SWITCHES OR ROUTER? ?
S4      31681   (SESSION? ? OR TRANSACTION? ? OR CONNECTION? ? OR TUNNEL??-
             ??)(3N)(ID OR IDS OR IDENTIFIER? ? OR IDENTIFICATION OR NUMBE-
             R? ? OR NUMERAL? ? OR CODE? ? OR NAME? ? OR LABEL? ? OR DESIG-
             NATION? ? OR DESCRIPTOR? ?)
S5        363   S1(50N)S2(50N)S3(50N)S4
S6       6172   SESSION? ?(5N)(ID OR IDS OR IDENTIFIER? ? OR IDENTIFICATION
              OR NUMBER? ? OR NUMERAL? ? OR CODE? ? OR NAME? ? OR LABEL? ?
             OR DESIGNATION? ? OR DESCRIPTOR? ?)
S7          51   S1(30N)S2(30N)S3(30N)S6
S8          30   S7 AND AC=US/PR
S9          18   S8 AND AY=(1970:2001)/PR
S10         16   S7 AND PY=1970:2001
S11         26   S9:S10
```

11/3,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01587724
Wireless communication system
Drahtloses Kommunikationssystem
Systeme de communication sans fil
PATENT ASSIGNEE:
Psion Teklogix Inc., (4318410), 2100 Meadowvale Boulevard, Mississauga, Ontario L5N 7J9, (CA), (Applicant designated States: all)
INVENTOR:
Fantaske, Steve, 43 Fairside Drive, Toronto, Ontario M4C 3H3, (CA)
LEGAL REPRESENTATIVE:
Cross, James Peter Archibald et al (77091), R.G.C. Jenkins & Co., 26 Caxton Street, London SW1H 0RJ, (GB)
PATENT (CC, No, Kind, Date): EP 1317113 A1 030604 (Basic)
APPLICATION (CC, No, Date): EP 2002258258 021129;
PRIORITY (CC, No, Date): US 998442 011203
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; SK; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-029/06
ABSTRACT WORD COUNT: 156
NOTE:
Figure number on first page: 3 5

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200323	1331
SPEC A	(English)	200323	11692
Total word count - document A			13023
Total word count - document B			0
Total word count - documents A + B			13023

...SPECIFICATION be apparent by those of ordinary skill.

As shown in Fig. 5, the access point **server** 210 is configured for wireless communication with the wireless terminal 204 over the wireless network a wireless-enabled networked computer **server** . The access point **server** 210 comprises a network interface 244 for land-based communication over the network backbone 208, an RF antenna 246 for wireless communication over the **wireless** network, and a data processing system 250 in communication with the network interface 244 and...

...communication with the CPU 256. The DISC 258 includes an address cache 262 which includes **wireless** terminal "radio addresses" and " **session numbers** " for identifying application software 230 and **wireless** terminals 204 to the **access point server** 210. The address cache 262 also includes "terminal numbers" and IP addresses for identifying application software and networked computers 206 to the **access point server** 210. Terminal numbers will be discussed with reference to Fig. 6. Radio **numbers** and **session numbers** will be discussed with reference to Fig. 7a.

The DISC 258 also includes instructions which...

...terminals 204 and one of the networked computers 206, as initiated by one of the **wireless** terminals 204, it should be appreciated that a similar discussion could relate to the transmission...is "802.IQ enabled" and that the wireless terminal 204 is in range of an **access point** server 210. Upon receipt of the broadcast beacon, the wireless terminal 204 responds to the **access point** server 210 with the boot number and the assigned radio address. The **access point** server 210 associated with the specified boot number then stores the received radio address in the address cache 262.

It should be understood, however, that the radio address and **session numbers** need not be assigned prior to registration with the **access point** server 210. Instead, the radio address and **session numbers** may

...network and the instant a link layer ACK segment is received from the access point **server** 610 over the wireless network in response to the transmitted data segment. Thereafter, if the...

...the network controller 700 queries the address cache 758 to determine the radio address and **session number** of the **wireless** terminal 204 to which the response should be transmitted, and then formats the response message...

...a format suitable for receipt and processing by the application software 230 on the identified **wireless** terminal 204. Using the radio address, the application protocol layer 780 also determines the IP address of the **access point server** 610 through which the **wireless** terminal 204 communicates. The network controller 700 then transmits the message over the TCP/IP virtual channel established with the **access point server** 610. The **access point server** 610 then transmits the resulting data over the wireless network for receipt by the identified...
...has been assumed that the wireless terminal 204 remains in communication with the access point **server** 610 with which it used to register itself with the wireless communication system 600. However...subsequent to registration, the wireless terminal 204 drifts out of range of the access point **server** 610 initially associated with the wireless terminal 204 and into range of another access point **server** 610, the wireless terminal 204 will receive a different boot number from the new access...

11/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01346145
Method for setting up a session between a host of a data network and a mobile terminal of a mobile network and device for performing such method
Ein Verfahren zum Aufbau einer Verbindung zwischen einem Hauptrechner in einem Datennetz und einem mobilen Endgerat in einem mobilen Netz sowie ein Gerat zur Durchfuhrung dieses Verfahrens
Methode pour l'etablissement d'une session entre un serveur d'un reseau de donnees et un terminal mobile d'un reseau mobile ainsi que dispositif pour la mise en oeuvre de cette methode
PATENT ASSIGNEE:
ALCATEL, (201871), 54, rue la Boetie, 75008 Paris, (FR), (Applicant designated States: all)
INVENTOR:
Nguyen, Tu-Anh, rue des Colombophiles 115, 1070 Brussels, (BE)
van Doorselaer, Bart, Weidelaan 16, 9090 Melle, (BE)
LEGAL REPRESENTATIVE:
Narmon, Gisele (83941), Industrial Property Department, Alcatel Bell N.V., Francis Wellesplein 1, 2018 Antwerpen, (BE)
PATENT (CC, No, Kind, Date): EP 1150521 A1 011031 (Basic)
APPLICATION (CC, No, Date): EP 2000401135 000425;
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04Q-007/24; H04L-029/06
ABSTRACT WORD COUNT: 145
NOTE:
Figure number on first page: 2

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200144	587
SPEC A	(English)	200144	2067
Total word count - document A			2654
Total word count - document B			0
Total word count - documents A + B			2654

...SPECIFICATION generates returning messages. Once both this first and this further session are established the mobility **server** device links them together thereby enabling data packets sent from the host to GW1 and ...
...from the MSD, is further adapted to extract from these messages an identifier of the **mobile** terminal T. GW1 will then further establish a second session with this terminal T such...

...session gateway devices covering neighbouring regions, of this session by communicating to them the terminal **identifier** , the end-to-end **session identifier** , and optionally the **identifier** of the second **session** between GW1 and T.
This communication between session gateway devices is schematically shown as the...

...line between GW1 and GW2.
This is important for instance when the user of the **mobile** terminal T travels and enters the second region 2 covered by the second session gateway...

...thus consist of a single radio link or of a series of individual links between **base stations** , **mobile** switching centers and other devices, dependent on to which element of the mobile network the...

11/3,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01276367
An architecture for an IP centric distributed network
Architektur fur ein IP-zentrisches verteiltes Netzwerk
Architecture pour un reseau IP-centrique distribue
PATENT ASSIGNEE:
Nortel Networks Limited, (3029040), World Trade Center of Montreal, 380 St. Antoine Street West, 8th floor, Montreal, Quebec H2Y 3Y4, (CA), (Applicant designated States: all)
INVENTOR:
Amin, Rajesh B., 1919 Pajarito Court, Desoto, Texas 75115, (US)
Hanley, Donald V., 4818 N. Meadow Ridge Circle, McKinney, Texas 75075, (US)
Morrow, Glenn C., 2021 Tampico Drive, Plano, Texas 75075, (US)
Allahyar, John, 5415 Willow Wood Land, Dallas, Texas 75252, (US)
LEGAL REPRESENTATIVE:
Mackenzie, Andrew Bryan et al (79993), Sommerville & Rushton, 45 Grosvenor Road, St Albans, Herts. AL1 3AW, (GB)
PATENT (CC, No, Kind, Date): EP 1098490 A2 010509 (Basic)
EP 1098490 A3 030827
APPLICATION (CC, No, Date): EP 2000309735 001103;
PRIORITY (CC, No, Date): US 434628 991105
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-029/06
ABSTRACT WORD COUNT: 215
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200119	2711
SPEC A	(English)	200119	13891
Total word count - document A			16602
Total word count - document B			0
Total word count - documents A + B			16602

...SPECIFICATION case the policy enforcement function that is a part of the user agent (access management **server**), performs decisions based on the

local decision point (LDP) 1518.
IP capable end terminals 1520 can communicate with each other transparently. However, the **wireless access point** plays an important role in establishing the air link path. An intervention at the **wireless access point** can occur several times during the communication. These scenarios are identified in the following paragraphs ...

...terminals 1508, 1520 are in active state. Assume terminal A 1508 is attached to the **wireless** access side. Terminal B 1520 is somewhere else on the Internet. Terminal B 1520 sends an INVITE message directly to the terminal A 1508 using the currently used call **ID** to modify an active call/ **session** with different quality of service parameters than what is included in the SDP. Terminal A...

...INVITE message, to the AML 1510, the message ends up at the user agent proxy **server** . The policy enforcement points and call admission control functions take place at the user agent proxy **server** . The user agent proxy **server** may need to access the subscriber related or the system level policy decision database. Such...

11/3,K/4 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01244704
WIRELESS COMMUNICATION UNIT CONNECTED DETACHABLY WITH EXTERNAL UNIT
DRAHTLOSES KOMMUNIKATIONSGERAT, DAS ABNEHMBAR MIT EINEM EXTERNEN GERAT VERBUNDEN IST
UNITE DE COMMUNICATION SANS FIL CONNECTEE AMOVIBLE A UNE UNITE EXTERNE
PATENT ASSIGNEE:
NTT DoCoMo, Inc., (3031180), 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100-6150, (JP), (Applicant designated States: all)
INVENTOR:
FUKUMOTO, Masaaki, B-507, 9-2-12, Sugita, Isogo-ku, Yokohama-shi, Kanagawa 235-0033, (JP)
ISHIGAKI, Shoichiro, 4-4-13-2-232, Takanawa, Minato-ku, Tokyo 108-0074, (JP)
SUGIMURA, Toshiaki, E-405, 3-51-1, Noukendai, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0057, (JP)
NAKANO, Hirotaka, Miharu-cho-heights 232 1-21-2, Miharu-cho, Yokosuka-shi Kanagawa 238-0014, (JP)
LEGAL REPRESENTATIVE:
HOFFMANN - EITLE (101511), Patent- und Rechtsanwalte Arabellastrasse 4, 81925 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1104976 A1 010606 (Basic)
WO 200078082 001221
APPLICATION (CC, No, Date): EP 2000939048 000614; WO 2000JP3838 000614
PRIORITY (CC, No, Date): JP 99167488 990614; JP 99198185 990712; JP 200049950 000225; JP 200053582 000229; JP 200059369 000303; JP 200068851 000313; JP 2000111252 000412; JP 2000151879 000523
DESIGNATED STATES: DE; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04Q-007/38; H04L-012/28; H04L-029/02; G06F-015/02; G06F-017/60
ABSTRACT WORD COUNT: 164
NOTE:
Figure number on first page: 2

LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200123	5224
SPEC A	(English)	200123	46978
Total word count - document A			52202
Total word count - document B			0
Total word count - documents A + B			52202

...SPECIFICATION to the wireless telecommunications unit 10 (external unit 60). The external unit 60 and the **server** 400 start the programs to connect them. In accordance with this program, a channel is...

...the external unit 60 sends the exchange request data of the session key to the **wireless** telecommunications unit 10.

In accordance with a control program, the microcontroller 22 of the **wireless** telecommunications unit 10 adds to the exchange request data the identification numberIDb of the **server** 400 as the destination, and the identification numberIDc of the **wireless** telecommunications unit 10 as the transmission source, and this data is sent to the **base station** of the **mobile** telecommunications network 200 via the **wireless** telecommunications means 10a. Accordingly, the exchange request data is sent to the **server** 400 via the **mobile** telecommunications network 200 (channel) (step S6).

In accordance with the program for enciphered telecommunications, the ...

...stored in the hard disk device 615, and sends this session key POkey1 to the **wireless** telecommunications unit 10. The microcontroller 22 of the **wireless** telecommunications unit 10 adds to the **session** key POkey1 the **identification** numberIDb as the destination and the identification numberIDc of the wireless telecommunications unit 10 as the transmission source, and this data is sent to the **server** 400 via the channel (step S7).

Furthermore, when the CPU 403 of the **server** 400 takes the exchange request data, it selects as a session key the open key...to the wireless telecommunications unit 10 (external unit 60). The external unit 60 and the **server** 400 start the programs to connect them. In accordance with this program, a channel is...

...of the server 400 (step S45), and the telecommunications terminal 800 is connected to the **server** 400.

Next, in accordance with the program for enciphered telecommunications recorded in the hard disk...

...the external unit 60 sends the exchange request data of the session key to the **wireless** telecommunications unit 10.

In accordance with a control program, the microcontroller 22 of the **wireless** telecommunications unit 10 adds to the exchange request data the identification numberIDb of the **server** 400 as the destination, and the identification numberIDc of the **wireless** telecommunications unit 10 as the transmission source, and this data is sent to the **base station** of the **mobile** telecommunications network 200 via the **wireless** telecommunications means 10a. Accordingly, the exchange request data is sent to the **server** 400 via the **mobile** telecommunications network 200 (channel) (step S46).

In accordance with the program for enciphered telecommunications, the ...

...stored in the hard disk device 615, and sends this session key POkey1 to the **wireless** telecommunications unit 10. The microcontroller 22 of the **wireless** telecommunications unit 10 adds to the **session** key POkey1 the **identification** numberIDb as the destination and the identification numberIDc of the wireless telecommunications unit 10 as the transmission source, and this data is sent to the **server** 400 via the channel (step S47).

Furthermore, the CPU 403 selects as a session key...

11/3,K/5 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01237753
Method for providing seamless communication across bearers in a wireless communication system
Verfahren zur nahtlosen Kommunikation uber Trager in einem drahtlosen

Kommunikationssystem

Procede de communication sans coupure a travers des porteuses dans un reseau de communication sans fil

PATENT ASSIGNEE:
MOTOROLA, INC., (205770), 1303 East Algonquin Road, Schaumburg, IL 60196, (US), (Applicant designated States: all)
INVENTOR:
Lin, Jyh-Han, 4931 NW 116th Avenue, Coral Springs, Florida 33076, (US)
Leung, Wu-Hon Francis, 1916 Elmore Avenue, Downers Grove, Illinois 60515, (US)
LEGAL REPRESENTATIVE:
Morgan, Marc et al (74603), Motorola European Intellectual Property Operations, Midpoint, Alencon Link, Basingstoke, Hampshire RG21 7PL, (GB)
PATENT (CC, No, Kind, Date): EP 1071256 A1 010124 (Basic)
APPLICATION (CC, No, Date): EP 99114336 990721;
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-029/06
ABSTRACT WORD COUNT: 131
NOTE:
Figure number on first page: 5

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200104	566
SPEC A	(English)	200104	3212
Total word count - document A			3778
Total word count - document B			0
Total word count - documents A + B			3778

...SPECIFICATION receiving 110 are vertically staggered to indicate propagation delay through the bearer network. Assuming the **server** has sufficient resources, and the client is an authorized client, during a time period 112 after receiving the request, the **server** generates a session identifier, and according to one embodiment of the invention, a compressed session identifier. The **server** then goes about returning 114 the session identifier and the compressed session identifier if generated. Finally, the client receives 116 the paramètters sent by the **server** . In addition to the request and **session identifier** generation, other conventional communication **session** activities also occurs, such as negotiation, for example. It will also be understood that a...

...one session.

Referring now to FIG. 2, there is shown a system diagram of a **mobile** communication system 200, in accordance with the invention. A **mobile** station 202, such as, for example, an integrated services digital radio is a client 102, which uses a fixed network equipment (FNE) 204 over a **wireless** link 206 to communicate with a **server** 104. The fixed network equipment 204 comprises a **base station** 208. The **base station** 208 includes transceiver equipment and radio resources for establishing a serving cell in the local vicinity. The base station is operatively coupled to a plurality of cross-connect **switches** , such as, for example, a first cross-connect switch 210, a second cross-connect switch...

...network.

In connecting to the server, the mobile station initiates a communication link with the **base station** 208. The type of communication link established determines which cross-connect switch or bearer network...

...in connecting to the server. Once a request is received from the mobile station, the **base station** forwards the information to the appropriate cross-connect switch, and then on to the server. The server then receives the request, and if resources are available, generates the **session identifier** and a compressed **session identifier** and returns these

parameters over the bearer network to the **base station** , which then transmits it back to the **mobile** station. Additionally, once the link is established, the **mobile** station negotiates with the server for communication protocol configuration, such as the maximum receive buffer ...

...3, there is shown a flow chart diagram 300 for a method of compressing a **session identifier** to obtain a compressed **session** identifier in accordance to the present invention. At the start of the process 302, the ...

...sufficient resources are available to facilitate the communication session. The first step performed by the **server** is generating 304 a long session identifier. Typically, and according to the Wireless Application Protocol...

11/3,K/6 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01085358
Centralized service management system for two-way interactive communication devices in data networks
Zentralisiertes Dienstverwaltungssystem fur bidirektionale interaktive Kommunikationsgerate in Datennetzen
Systeme de gestion de services centralise pour des dispositifs de communication interactif a deux voies dans des reseaux de donnees
PATENT ASSIGNEE:
Phone.Com Inc., (2766840), 800 Chesapeake Drive, Redwood City, CA 94063, (US), (Applicant designated States: all)
INVENTOR:
King, Peter F., 121 Presidio Avenue, Half Moon Bay, CA 94019, (US)
Boyle, Stephen S., 43541 Greenhills Way, Fremont, CA 94539, (US)
Stein, Lawrence M., 5475 Fern Drive, San Jose, CA 95124, (US)
LEGAL REPRESENTATIVE:
Ablett, Graham Keith et al (53082), Ablett & Stebbing, Caparo House, 101-103 Baker Street, London W1M 1FD, (GB)
PATENT (CC, No, Kind, Date): EP 954147 A2 991103 (Basic)
EP 954147 A3 010411
APPLICATION (CC, No, Date): EP 99303370 990429;
PRIORITY (CC, No, Date): US 71080 980430
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-029/06; H04Q-007/22
ABSTRACT WORD COUNT: 115
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9944	362
SPEC A	(English)	9944	7924
Total word count - document A			8286
Total word count - document B			0
Total word count - documents A + B			8286

...SPECIFICATION of HDML information that can be exchanged between the mobile device 106 and the link **server** 114. The specifications of HDTP, entitled "HDTP Specification", and HDML, entitled "HDML 2.0 Language...

...the overhead thereof and is highly optimized for use in thin devices, such as the **mobile** devices, that have significantly less computing power and memory than that in a desktop personal...

...the UDP does not require a connection to be established between a client

and a **server** before information can be exchanged, which eliminates the need of exchanging a large **number** of packets during a **session** creation between a client and a **server** . Exchanging a very small number of packets during a transaction is one of the desired features for a **mobile** device with very limited computing power and memory to effectively interact with a landline device.

Further, the carrier infrastructure 108 and **mobile** devices, in Figure 1, represents a **wireless** network system that may be a GSM or CDPD network system depending on the transmission protocol used by the carrier in the network system. A **wireless** network system is generally composed of three broad parts; **mobile** stations, a **base station** and an operation and maintenance center. The mobile stations are, for example, a plurality of...

11/3,K/7 (Item 7 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

00370723

Method for routing information in a telecommunications switching system
Verfahren zur Informationslenkung in einem Telekommunikationsvermittlungssystem
Procede d'acheminement d'information dans un systeme de commutation pour telecommunications

PATENT ASSIGNEE:
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INVENTOR:
Goodman, David J., 315 Beach Drive, Cliffwood Beach New Jersey 07735, (US)

LEGAL REPRESENTATIVE:
Buckley, Christopher Simon Thirsk et al (28912), AT&T (UK) LTD., AT&T Intellectual Property Division, 5 Mornington Road, Woodford Green, Essex IG8 0TU, (GB)

PATENT (CC, No, Kind, Date): EP 366342 A2 900502 (Basic)
EP 366342 A3 911227
EP 366342 B1 960124

APPLICATION (CC, No, Date): EP 89310696 891018;
PRIORITY (CC, No, Date): US 263928 881028
DESIGNATED STATES: DE; FR; GB; NL; SE
INTERNATIONAL PATENT CLASS: H04Q-007/22; H04L-012/56; H04B-007/26;
ABSTRACT WORD COUNT: 120

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	292
CLAIMS B	(English)	EPAB96	403
CLAIMS B	(German)	EPAB96	384
CLAIMS B	(French)	EPAB96	425
SPEC A	(English)	EPABF1	4743
SPEC B	(English)	EPAB96	4804
Total word count - document A			5035
Total word count - document B			6016
Total word count - documents A + B			11051

...SPECIFICATION the inventive celluar switching system as a wide area network (WAN) linking base stations, public **switches** , and a cellular control unit. Information may enter and leaves the WAN through cellular interface...

...R. A. Valenzuela, K. T. Gayliard, and B. Ramamurthi, Packet Reservation Multiple Access for Local **Wireless** Communications, "Proc. 38th IEE Vehicular Technology Conference", Philadelphia June 1988, pp. 701-706). As a...

...an attractive combination of simple control, efficient bandwidth utilization, and robustness in the presence of **wireless** access channel

impairments. To marry PRMA to the inventive **cellular** switching system, we may introduce to each terminal a **wireless** terminal interface unit (WIU).

II. Interface Units

The WIU, BIU, TIU, and CIU of this embodiment organize information transfer among **wireless** terminals, **base stations** , central office trunks, and the **cellular** control unit, respectively. Each packet contains a source address and a destination address. Sometimes the...

...permanent identifier of an interface unit. At other times, the address is a call control **number** associated with a particular communication **session** . The addressing procedures are discussed in Section III in the context of specific communication and control functions. In this Section we describe the capabilities of the interface units.

II.a **Cellular** Trunk Interface Unit (TIU)

The TIU accepts and delivers information in the standard format of...

11/3,K/8 (Item 8 from file: 348)

00336647

High throughput communication method and system for a digital mobile station when crossing a zone boundary during a session.

Kommunikationsverfahren und System mit hohem Durchsatz fur eine digitale mobile Station beim Uberfahren einer Zonengrenze wahrend einer Verbindung.

Systeme et methode de communication a haut debit pour station mobile numerique lors du changement de zone en cours de session.

PATENT ASSIGNEE:
NEC CORPORATION, (236690), 7-1, Shiba 5-chome Minato-ku, Tokyo, (JP), (applicant designated states: DE;GB;NL)

INVENTOR:
Shimizu, Toshimitsu, c/o NEC Corporation 33-1, Shiba 5-chome, Minato-ku Tokyo, (JP)
Sako, Yasuhiko, c/o NEC Corporation 33-1, Shiba 5-chome, Minato-ku Tokyo, (JP)
LEGAL REPRESENTATIVE:
VOSSIUS & PARTNER (100311), Postfach 86 07 67, D-81634 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 328100 A2 890816 (Basic)
EP 328100 A3 901205
EP 328100 B1 950621
APPLICATION (CC, No, Date): EP 89102236 890209;
PRIORITY (CC, No, Date): JP 8829066 880210; JP 8829067 880210; JP 8829068 880210; JP 8919037 890126
DESIGNATED STATES: DE; GB; NL
INTERNATIONAL PATENT CLASS: H04Q-007/20; H04B-007/26; H04L-012/56;
ABSTRACT WORD COUNT: 219

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	2522
CLAIMS B	(English)	EPAB95	2636
CLAIMS B	(German)	EPAB95	2447
CLAIMS B	(French)	EPAB95	3282
SPEC A	(English)	EPABF1	5296
SPEC B	(English)	EPAB95	5329
Total word count - document A			7818
Total word count - document B			13694
Total word count - documents A + B			21512

...SPECIFICATION from base station B(sub 1) to mobile station M(sub 1), causing it to **switch** to a receive mode to receive down-direction data packets (m, 1) through (m, n...

...numbered acknowledgment packet 70-2 is transmitted from mobile station

M(sub 1). Assume that **mobile** station M(sub 1) has moved in the direction of the arrow in ...the even-numbered acknowledgment packet 70-2. Upon entering the service zone Z(sub 2), **mobile** station M(sub 1) selects an idle data channel in cooperation with the control channel 25 of **base station** B(sub 2) and sends a "reconnect" request packet 71 through the selected data channel to the main controller 17 of **base station** B(sub 2). The main controller of this **base station** proceeds to assign a new **session number** in the selected data channel in response to the reconnect request packet 71. This reconnect...

...field in which the serial number of the last block data which was transmitted from **base station** B(sub 1) and received by **mobile** station M(sub 1) is indicated. In the BLK fields of the reconnect request packet 71, **mobile** station M(sub 1) writes BLK=#m. **Base station** B(sub 2) communicates this fact to central station C(sub 1), which, knowing that...

...packet 72 to base station B(sub 1) so that the connection between it and **mobile** station M(sub 1) is cleared. Base station B(sub 1) then returns a clear...

...5b. A reconnect command packet 74 is transmitted from central station C(sub 1) to **base station** B(sub 2) to request it to establish a new connection to **mobile** station M(sub 1) by informing it of source and destination **mobile** station identifiers. **Base station** B(sub 2) then sends a reconnect response packet 75 in response to the reconnect command packet 74 to inform the **mobile** station M(sub 1) of the newly assigned **session number** , and the same source and destination **mobile** station identifiers as contained in the reconnect command packet 74.

Since the serial number of the last data block which was received by **mobile** station M1 before leaving the service zone Z(sub 1) has been informed by the...

...sub 1) now transmits an (m+1)-th block of down-direction data packets to **base station** B(sub 2), which responds to it by transmitting an (m+1)-th "reverse" polling packet 60 to **mobile** station M(sub 1) to **switch** it to a receive mode. In this way, a series of down-direction data packets...

...SPECIFICATION from base station B(sub 1) to mobile station M(sub 1), causing it to **switch** to a receive mode to receive down-direction data packets (m, 1) ...numbered acknowledgment packet 70-2 is transmitted from mobile station M(sub 1). Assume that **mobile** station M(sub 1) has moved in the direction of the arrow in Fig. 1...

...the even-numbered acknowledgment packet 70-2. Upon entering the service zone Z(sub 2), **mobile** station M(sub 1) selects an idle data channel in cooperation with the control channel 25 of **base station** B(sub 2) and sends a "reconnect" request packet 71 through the selected data channel to the main controller 17 of **base station** B(sub 2). The main controller of this **base station** proceeds to assign a new **session number** in the selected data channel in response to the reconnect request packet 71. This reconnect...

...field in which the serial number of the last block data which was transmitted from **base station** B(sub 1) and received by **mobile** station M(sub 1) is indicated. In the BLK fields of the reconnect request packet 71, **mobile** station M(sub 1) writes BLK=#m. **Base station** B(sub 2) communicates this fact to central station C(sub 1), which, knowing that...
...packet 72 to base station B(sub 1) so that the connection between it and **mobile** station M(sub 1) is cleared. Base station B(sub 1) then returns a clear...

...5b. A reconnect command packet 74 is transmitted from central station C(sub 1) to **base station** B(sub 2) to request it to establish a new connection to **mobile** station M(sub 1) by informing it of source and destination **mobile** station identifiers. **Base station** B(sub 2) then

sends a reconnect response packet 75 in response to the reconnect command packet 74 to inform the **mobile** station M(sub 1) of the newly assigned **session number**, and the same source and destination **mobile** station identifiers as contained in the reconnect command packet 74.

Since the serial number of the last data block which was received by **mobile** station M1 before leaving the service zone Z(sub 1) has been informed by the...

...sub 1) now transmits an (m+1)-th block of down-direction data packets to **base station** B(sub 2), which responds to it by transmitting an (m+1)-th "reverse" polling packet 60 to **mobile** station M(sub 1) to **switch** it to a receive mode. In this way, a series of down-direction data packets...

11/3,K/10 (Item 2 from file: 349)

00979615 **Image available**

TELECOMMUNICATIONS SYSTEM AND METHOD FOR DELIVERY OF SHORT MESSAGE SERVICE MESSAGES TO A MOBILE TERMINAL IN DATA MODE

SYSTEME ET PROCEDE DE TELECOMMUNICATIONS PERMETTANT DE DISTRIBUER DES MESSAGES DE SERVICE DE MESSAGES COURTS (SMS) VERS UN TERMINAL MOBILE EN MODE DONNEES

Patent Applicant/Assignee:
ERICSSON INC, 6300 Legacy, Plano, TX 75024, US, US (Residence), US (Nationality)
Inventor(s):
KRANSMO Jan, 2504 Deer Horn Drive, Plano, TX 75025, US,
LEE Bo, 3708 Legendary Lane, Plano, TX 75023, US,
Legal Representative:
BURLEIGH Roger S (et al) (agent), Ericsson Inc., 6300 Legacy, MS EVW 2-C-2, Plano, TX 75024, US,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200309616 A1 20030130 (WO 0309616)
Application: WO 2002US23020 20020718 (PCT/WO US0223020)
Priority Application: US 2001909190 20010719
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 5407

Fulltext Availability:
Claims

Claim
... to said Short Message Service Center upon receipt of said 5 response message.

21 The **Mobile** Services Switching Center of Claim 15, wherein said conversion logic routes said electronic mail message to said MS using an electronic mail address for said MS.

22 The **Mobile** Services Switching Center of Claim 21, wherein said electronic mail address includes an International **Mobile** Subscriber Identity number of said MS

at an Internet Service **Provider** of said MS.

23 A Base Station Controller for delivering a Short Message Service (SMS) message to a **mobile** station (MS) supporting both voice services and data services, said **Base Station** Controller comprising:
means for determining whether said MS is currently involved in a data session...

...an
electronic mail message when said MS is involved in said data session.

24 The **Base Station** Controller of Claim 23, wherein said means for determining comprises a feature code indicating that said MS is involved in said data **session** , said feature **code** being sent by said MS at the start of said data session.

25 The **Base Station** Controller of Claim 23, further comprising:
a Packet Control Function for determining routing
10 information...

...said electronic mail message being delivered to said MS using said routing information.

26 The **Base Station** Controller of Claim 23, further comprising:
means for receiving said SMS message from a Short Message Service Center.
27 . The **Base Station** Controller of Claim 26, wherein said conversion logic tags said electronic mail message with a...

11/3,K/12 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00977511 **Image available**
METHOD AND SYSTEM FOR WIRELESS DISTRIBUTION OF LOCAL INFORMATION
PROCEDE ET SYSTEME DE RADIODISTRIBUTION DE DONNEES LOCALES
Patent Applicant/Assignee:
APPEAR NETWORKS AB, Bjornnasvagen 21, S-113 47 Stockholm, SE, SE (Residence), SE (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
CABRERA Alex, Fiskartorpsvagen 15D, S-114 33 Stockholm, SE, SE (Residence), (Designated only for: US)
AUBRY Xavier, 1 Soldiers Field Park, Apt. 411, Boston, MA 02163, US, US (Residence), (Designated only for: US)
DAHLSTRAND Martin, Morbydalen 13, 3tr., S-182 52 Danderyd, SE, SE (Residence), SE (Nationality), (Designated only for: US)
ANDERSSON Frederik, Fatburs Kvarngata 7, S-118 64 Stockholm, SE, SE (Residence), SE (Nationality), (Designated only for: US)
LEI Kimberly, 2 Peabody Terrace, #203, Cambridge, MA 02138, US, US (Residence), (Designated only for: US)
Legal Representative:
LINDEN Stefan (agent), Bergenstrahle & Lindvall AB, P.O. Box 17704, S-118 93 Stockholm, SE,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200307553 A1 20030123 (WO 0307553)
Application: WO 2002SE841 20020429 (PCT/WO SE0200841)
Priority Application: SE 20011524 20010427; US 2001286992 20010430
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE

ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 5949

Fulltext Availability:
Claims

Claim
... in the same way as after connecting to the LIS 5, with the respective HTTP **servers** 9 to get the icons and infortnation files of all the 30 new services in...

...broadcasts, through an AP 3 connected thereto, messages containing its address, its port and its **session number** , typically the sequence [193 39: ...Thus, specifically it can periodically send IP-multicast packets containing its IP-address, its port **number** , and a **session number** to listening devices having the local browser installed and running. The multicast packets are preferab'ly sent through Bluetooth **access points** and/or WLAN **access points** . It can also be sent over other **wireless** and 40 wired IP networks. The **session number** in the multicast packet tells a listening device whether available services have been changed. . It connects to a **portable** device I when obtaining a connection request from the device and then ...checks the available applications by sending control commands through the Internet 7 to the HTTP **server** 9 and indicates in the corresponding registered service information object whether it is currently available...

11/3,K/13 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00924792 **Image available**
METHOD, COMPUTER-READABLE MEDIUM AND APPARATUS FOR WIRELESSLY EXCHANGING COMMUNICATIONS WITH A MOBILE UNIT
PROCEDE DE MOBILITE DE CONTEXTE DE LIAISON ET SYSTEME ASSURANT CETTE MOBILITE, NOTAMMENT SYSTEME UTILISANT DES PROTOCOLES SANS FIL A ETALEMENT DE SPECTRE A SAUT DE FREQUENCE A FAIBLE PORTEE
Patent Applicant/Assignee:
STRIX SYSTEMS INC, Suite 150, 310 North Westlake Boulevard, Westlake Village, CA 91362, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
BEASLEY James, 634 Verdemont Circle, Simi Valley, CA 93065, US, US (Residence), US (Nationality), (Designated only for: US)
DOMBROWSKI Dennis, 12132 London Grove Court, Moorpark, CA 93021, US, US (Residence), US (Nationality), (Designated only for: US)
FUHRING James, 2933 Bayshore Avenue, Ventura, CA 93001, US, US (Residence), US (Nationality), (Designated only for: US)
JOLLOTA James, 317 Ulysses Street, Simi Valley, CA 93065, US, US (Residence), US (Nationality), (Designated only for: US)
KAMSTRA Duke, 1765 Blue Canyon Street, Thousand Oaks, CA 91320, US, US (Residence), US (Nationality), (Designated only for: US)
KUIKEN Matthew, 13903 Washington Avenue, Hawthorne, CA 90250, US, US (Residence), US (Nationality), (Designated only for: US)
MERGENTHAL Wade, 5255 Goldenridge Court, Camarillo, CA 93012, US, US (Residence), US (Nationality), (Designated only for: US)
MOHAMMAD Soiba, 20033 Blythe Street, Winnetka, CA 91306, US, US (Residence), US (Nationality), (Designated only for: US)
SHERICK Carol, 1975 Cabrillo Mesa Court, Camarillo, CA 93010, US, US (Residence), US (Nationality), (Designated only for: US)

STEPHENS Spencer, 4538 Ledge Avenue, Toluca Lake, CA 91602, US, US (Residence), US (Nationality), (Designated only for: US)
WHITE Alan, 300 Aliso Street, Ventura, CA 91307, US, US (Residence), US (Nationality), (Designated only for: US)
ZANDIAN Said, 373 Alder Springs Drive, Oak Park, CA 91377, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
DALEY-WATSON Christopher J (et al) (agent), Perkins Coie LLP, P.O. Box 1247, Seattle, WA 98111-1247, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200258335 A2-A3 20020725 (WO 0258335)
Application: WO 2002US1589 20020118 (PCT/WO US0201589)
Priority Application: US 2001262558 20010118; US 2001288294 20010502; US 2001333844 20011128
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 14136

Fulltext Availability:
Claims

Claim
1 . In a network, a method for **wirelessly** exchanging communications with at least one mobile unit, wherein the network includes first and second...
...the received message.
. The method of claim 1, further comprising generating a set of unique **session identifiers** before receiving the wireless communication from the
mobile unit or other mobile units, wherein generating comprises:
at each **base station** unit in the network, locally generating at least one
proposed identifier value;
transmitting the proposed value to **base station** units in the network,
determining whether any other **base station** units have generated an identical identifier value- and
if not, then storing the proposed value for use as the unique **session identifier** .

9 The method of claim 1 , further comprising a system controller coupled to the first and second **base station** units and to the network, and wherein determining that the mobile unit is to be handed-off and handing off to the second **base station** unit includes monitoring a quality of the communications link with mobile unit, determining that the...

...transmissions for the mobile unit, and sending a handoff acceptance inquiry message to the second **base station** unit;
receiving a response from the second base station unit;
forwarding the link context data...

11/3,K/14 (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00907425 **Image available**

METHOD AND SYSTEM FOR ENABLING CENTRALIZED CONTROL OF WIRELESS LOCAL AREA NETWORKS

PROCEDE ET SYSTEME ASSURANT LA COMMANDE CENTRALISEE DE RESEAUX LOCAUX SANS FIL

Patent Applicant/Assignee:
BLUESOCKET INC, 7 New England Executive Park, Burlington, MA 01803, US, US (Residence), US (Nationality)
Inventor(s):
CROSBIE B David, 47 Bay State Avenue, Somerville, MA 02144, US,
Legal Representative:
TESTA HURWITZ & THIBEAULT LLP (agent), High Street Tower, 125 High Street, Boston, MA 02110, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200241587 A2-A3 20020523 (WO 0241587)
Application: WO 2001US51306 20011022 (PCT/WO US0151306)
Priority Application: US 2000241975 20001023; US 2001911092 20010723
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AU CA JP
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
Publication Language: English
Filing Language: English
Fulltext Word Count: 14427

Fulltext Availability:
Detailed Description

Detailed Description

... present invention, the second master inherits the characteristics of the first master. These characteristics include **session** data, such as the Bluetooth **identifier** (or other WLAN identifier) of the **access point** and encryption keys, as well as the PPP magic **number** .

The **session** data may also include an **identifier** for the **mobile** device. Also, either the clocks of both masters are synchronized, or the slave is instructed...

...provides solutions to the problems indicated above without requiring special software (or hardware) in the **mobile** device (that is, changes from a conventional approach are only required in the AP's and the roaming **server**), as provided for in the embodiments described below. The techniques of the invention provide for...

...Higher level variables and link sessions such as IPSEC and PPP are held at the **switch** (e.g., controller, roaming server, or gateway server). The present invention also provides for the...set by the clock of the access point 24, so all the slaves (e.g., **mobile** devices 26) are in synchronization with the master (e.g., access point 24). As each...

...described in the following paragraphs.

It is easy to move mobile devices 26 between access **points** 24 by copying the session data 48, such as appropriate AP device address 52 and encryption codes, from one **access point** 24 to another **access point** 24. The session data 48 is the data for the current session between the mobile device 26 and the **access point** 24 based on a connection 30. The session data 48 can include the AP device...

...mobile device address, hop sequence, frequency offset, and encryption data (e.g., encryption key or **codes**). The movement of **session** data 48, such as the AP device addresses 52 and encryption codes, is achieved by controlling all the **access points** 24 from a central roaming server 22. By having all the **access points** 24 in synchronization there is no clock offset to adjust, although this issue can be...

...clock offset command). The clock offset command may be required because Bluetooth devices, such as **access points** 24 and **mobile** devices 26,

normally having free running clocks. Creating a piconet 57 requires each slave to...

11/3,K/16 (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00905520 **Image available**
A METHOD AND SYSTEM FOR SECURE WIRELESS DATABASE MANAGEMENT
PROCEDE ET SYSTEME SECURISES DE GESTION DE BASE DE DONNEES SANS FIL
Patent Applicant/Assignee:
EXPAND BEYOND CORPORATION, 640 N. La Salle Street, Suite 330, Chicago, IL 60610, US, US (Residence), US (Nationality)
Inventor(s):
KAPLAN Ari D, 111 W.Maple, Chicago, IL 60610, US,
Legal Representative:
RUPP Brian C (agent), Gardner, Carton & Douglas, 321 N. Clark Street, Suite 3400, Chicago, IL 60610, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200239637 A1 20020516 (WO 0239637)
Application: WO 2001US46752 20011108 (PCT/WO US0146752)
Priority Application: US 2000247523 20001109
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 6115

Fulltext Availability:
Claims

Claim
... step of. limiting access to a wireless database management system with a firewall between a **server** and the Internet.

3 The method of Claim 2 further comprising the step of. limiting...

...the step of.
compressing and parsing data transferred between a wireless device and a wireless **base station** .
1 9
. The method of Claim I ftirther comprising the step ofnicknaming the address of...

...the nickname and its address in memory.

16 A method for securing data within a **wireless** database management system, the method comprising the steps ofauthenticating the identity of a user of a **wireless** database management system; identifying a session that a user of a **wireless** device has established with a web server with a **session identification** phrase, and storing the **session identification** phrase in
I 0 memory; and
timing out connections between a **wireless** device and a server.

17 The method of claim 16 further comprising the step ofallowing the timing out of connections between a **wireless** device and a server to be adjusted.

18 The method of claim 16 further comprising the steps of. encrypting data transferred within a **wireless** database management system with a public key method;
encrypting data transferred within a **wireless** database management system with a
private key method; and
encrypting data transferred between a **wireless** **base** station and a server with a low-layer security protocol.

19 The method of Claim...

...to a wireless database management system with a firewall between a database server and a **server** .

21 The method of Claim 16 further comprising the step ofcategorizing users of a wireless...

11/3,K/17 (Item 9 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

00875278 **Image available**
METHOD AND SYSTEM FOR ENABLING SEAMLESS ROAMING IN A WIRELESS NETWORK
PROCEDES PERMETTANT DES TRANSITIONS SANS COUPURE DANS UN RESEAU SANS FIL
Patent Applicant/Assignee:
BLUESOCKET INC, 7 New England Executive Park, Burlington, MA 01803, US, US (Residence), US (Nationality)
Inventor(s):
CROSBIE David B, 47 Bay State Avenue, Somerville, MA 02144, US,
Legal Representative:
HEFFAN Ira (agent), Testa, Hurwitz & Thibeault, LLP, High Street Tower, 125 High Street, Boston, MA 02110, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200209458 A2-A3 20020131 (WO 0209458)
Application: WO 2001US23145 20010723 (PCT/WO US0123145)
Priority Application: US 2000220385 20000724
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
CA JP
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
Publication Language: English
Filing Language: English
Fulltext Word Count: 9095

Fulltext Availability:
Detailed Description

Detailed Description
... packets between the mobile device 28 and the resource 44) In general, when the gateway **server** 22 is referred to herein as performing some fimction, this means that the digital processor 70 of the gateway **server** 22 is performing that function based on the instructions of the gateway 1 0 application...

...executing on the digital processor 70. The device database 72 stores device identifiers 76 for **mobile** devices 28 and, in a preferred embodiment, context information 56 for each device identifier 76...

...interface 75 includes communications hardware and. software that provides communications over network or other connections (**wireless** or cable) to 1 5 other entities such as the **base** **station** LAP 24 or a **server** over the Internet. An authentication request 84 is a Bluetooth (or other WLAN)`request originating from a **mobile** device 28 to authenticate the device 28 and establish a connection 40 between the device 28 and a **base** **station** LAP 24. The authentication approval with

context information 56 is an approval of the authentication...

...that includes the context infonnation 56 (e.g., EP address previously assigned to the device **identifier** 76 in an earlier **session** of the device 24 previously authenticated by the gateway **server** 22). The cluster access privileges 46 illustrated in Fig. 1 is one example of context...

11/3,K/18 (Item 10 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00857664 **Image available**
A SYSTEM FOR PROVIDING WIRELESS APPLICATION PROTOCOL-BASED SERVICES
SYSTEME DE PRESTATION DE SERVICES BASES SUR LE PROTOCOLE D'APPLICATION SANS FIL (WAP)
Patent Applicant/Assignee:
ZTANGO INC, 2191 Fox Mill Road, Suite 400, Herndon, VA 20171, US, US (Residence), US (Nationality)
Inventor(s):
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KHURANA Sanjay, 2191 Fox Mill Road, Suite 400, Reston, VA 20171, US,
SUOMALAINEN Matti, Metsanneidonkuja 8, FIN-02130 Espoo, FI,
Legal Representative:
FRIEDLAND David K (agent), Lott & Friedland, P.A., P.O. Drawer 141098, Coral Gables, FL 33114-1098, (et al), US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200191401 A2-A3 **20011129** (WO 0191401)
Application: WO 2001US16325 20010518 (PCT/WO US0116325)
Priority Application: US 2000203811 20000519
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 16197

Patent and Priority Information (Country, Number, Date):
Patent: ... **20011129**
Fulltext Availability:
Claims
Publication Year: **2001**

Claim
... of various counters that monitor different values related to the system status, such as the **number** of **sessions** and transactions, memory
usage, and system uptime.

34 The system of Claim 33, wherein values...

...separate file for retrieval and viewing.

35 The system of Claim 20, wherein said Content **Servers** can be located on the Internet or in a local network.

36 A system for providing infonnation over a **Wireless** Application Protocol Gateway, comprising:
at least one **Access Point** , wherein said **Access Point** enables

consumers to connect to said gateway and further is utilized
in a Circuit Switched Data network, whereby incoming
traffic from said network is directed through a dialup **server**
over User Datagram Protocol;
a Core, wherein. said Core transmits requests from. consurners to
said Content **Servers** on a global network of computers, and
data from said Content **Servers** back to the consumers, said
Core comprised of content adapters, sessionaransaction
handling modules, WAP Stack...

11/3,K/19 (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00842443 **Image available**
APPLICATION GATEWAY SYSTEM
SYSTEME DE PASSERELLE D'APPLICATIONS
Patent Applicant/Assignee:
WIRELESS KNOWLEDGE, 6215 Ferris Square, San Diego, CA 92121, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
SALO Randy, 1441 Yost Drive, San Diego, CA 92109, US, US (Residence), US (Nationality), (Designated only for: US)
VAN HAMERSVELD Chris, 1014 Honeysuckle Drive, San Marcos, CA 92069, US, US (Residence), US (Nationality), (Designated only for: US)
SHELTON Barry K, 12272 Misty Blue Court, San Diego, CA 92131, US, US (Residence), US (Nationality), (Designated only for: US)
HERBINAUX Larry, 843A Hampton Court, Vista, CA 92083, US, US (Residence), US (Nationality), (Designated only for: US)
LINDSEY Teddy D, 10828 Caminito Arcada, San Diego, CA 92131, US, US (Residence), US (Nationality), (Designated only for: US)
INNESS-BROWN Lee, 15735 Lawson Valley Road, Jamul, CA 91935, US, US (Residence), US (Nationality), (Designated only for: US)
MARTYN Jeffrey, 5663 Balboa Avenue, #395, San Diego, CA 92111, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
HSU Lee (et al) (agent), Brobeck, Phleger & Harrison LLP, 12390 El Camino Real, San Diego, CA 92130-2081, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200176190 A2-A3 **20011011** (WO 0176190)
Application: WO 2001US10900 20010403 (PCT/WO US0110900)
Priority Application: US 2000541173 20000403
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 7642
Patent and Priority Information (Country, Number, Date):
Patent: ... **20011011**
Fulltext Availability:
Detailed Description
Publication Year: **2001**

Detailed Description
... connection 305, such as the Internet, to the enterprise network 311.
Enterprise network 311 includes **router** 306, router connection 307,
enterprise gateway server 308, database 309, and information source 3 1
...

...device 3 01 in the form of a URL and transmits the request to dedicated **server** 308 using **router** connection 307.

Application gateway **server** 307 and application gateway **server** 415 operate according to the mechanization depicted in FIG. 5. According to FIG. 5, the information from **Base Station** Controller/ **Mobile** Switching Center (BSC/MSQ 106 is transmitted as a URL request for inforination in the form of a **session identifier** , page **identifier** , an action, and additional inforrnation. This URL information is received by an interface module 501 in an World Wide Web **server** employing ISAPI (Internet **Server** Application Program Interface). ISAPI is an Application Program Interface for Microsoft's 115 (Internet Information **Server**) Web **server** .

ISAPI enables Web-based applications that run much faster than conventional CGI programs due to tight integration with the Web **server** . ISAPI is the first segment encountered by the browser request. Interface module 501 represents a software interface and can be an interface other than ISAPI, such as Active **Server** Pages (ASP) or Device Mobility Interconnect (DMI), or any software having the ability to perform...

11/3,K/20 (Item 12 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00791028 **Image available**
RADIO COMMUNICATIONS
COMMUNICATIONS RADIO
Patent Applicant/Assignee:
SIMOCO INTERNATIONAL LIMITED, P.O. Box 24, St. Andrews Road, Cambridge CB4 1DP, GB, GB (Residence), GB (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
RAYNE Mark Wentworth, 5 St. James Close, Stretham, Nr. Ely, Cambridgeshire CB6 3ND, GB, GB (Residence), GB (Nationality), (Designated only for: US)
Legal Representative:
FRANK B DEHN & CO (agent), 179 Queen Victoria Street, London EC4V 4EL, GB
,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200124560 A1 **20010405** (WO 0124560)
Application: WO 2000GB3702 20000927 (PCT/WO GB0003702)
Priority Application: GB 9922847 19990927
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KR (utility model) KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 7439

Patent and Priority Information (Country, Number, Date):
Patent: ... **20010405**
Fulltext Availability:
Detailed Description
Publication Year: **2001**

Detailed Description
... the exchange of messages as the call progresses.

When it wishes to make the call, **mobile** station 30 first registers with base station 32. The base station 32 passes the call...

...illustrated).

Thus, authentication centre 36 supplies session key - 17 KS and random seed RS to **base station** 32 via switch 35.

Base station 32 generates random number RAND1 and sends random number RAND1 and random seed RS to...

...30 as a challenge. Mobile station 30 computes its response RES1 and returns it to **base station** 32. At the same time it derives an encryption (cipher) key, DCK, for use when communicating with **base station** 32, using random number RAND1, random seed RS, and its secret key K. The **base station** confirms that the mobile station's response RES1 is the correct response, derives its cipher key, DCK, from the **session** key KS and random **number** RAND1 (which cipher key should be the same as the mobile station's derived cipher key, DCK, where the mobile station is authentic), and acknowledges **mobile** station 30's registration request.

The **mobile** station and **base station** can then use the derived cipher key DCK to encrypt their communications to each other...

...station 30 sends its handover request to base station 32. (In a TETRA system, the **mobile** stations determine when a handover is necessary; in GSM the base stations make the decision...

...in accordance with the present invention, the handover request message from base station 32 to **base station** 33 contains the identity of mobile station 30, and the values of random number RAND1...

...key KS used to derive the cipher key that mobile station 30 is currently using. **Base station** 33 regenerates the cipher key DCK using random number RAND1 and session key KS in algorithm TA12 (Figure 1) and sends a message to **base station** 32 via switch 35. **Base station** 32 confirms the handover request to mobile station 31. Mobile station 31 switches to a radio channel used by **base station** 33 and makes direct contact with **base station** 33, still using the cipher key DCK it was using with **base station** 33.

In this example, there is minimal interruption to the mobile station 30 by the handover signalling, and the derived cipher key is never exposed outside mobile station 31 and **base** stations 32 and 33. Session key KS is transmitted along the communication links from base station 32 and base station 33 to the **switch** 35.

However, such session keys would normally be sent

11/3,K/21 (Item 13 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00789642 **Image available**
WIDE AREA NETWORK SYNCHRONIZATION
SYNCHRONISATION DE RESEAU ETENDU
Patent Applicant/Assignee:
TELEFONAKTIEBOLAGET LM ERICSSON (publ), S-126 25 Stockholm, SE, SE (Residence), SE (Nationality)
Inventor(s):
NOVAK Lars, Mans Ols vag 13, S-237 91 Lund, SE,
JONSSON Andreas, Sofiaparken 6D, S-222 41 Lund, SE,
EKBERG Bjorn, Ostergatan 55, S-239 30 Skanor, SE,
Legal Representative:
ERICSSON MOBILE COMMUNICATIONS AB (agent), IPR Department, S-221 83 Lund, SE,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200122678 A2-A3 **20010329** (WO 0122678)
Application: WO 2000EP8834 20000911 (PCT/WO EP0008834)
Priority Application: US 99154782 19990920; US 2000568340 20000510
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KR (utility model) KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 6502

Patent and Priority Information (Country, Number, Date):
Patent: ... **20010329**
Fulltext Availability:
Detailed Description
Publication Year: **2001**

Detailed Description
... antenna 130, the WAP to IP Gateway 140 forwards the signals over network 150 to **server** 160. Server 160 receives the signals and sends a response, if requested, back to the **mobile** device 110 over network 150 to WAP to IP Gateway 140. WAP to IP Gateway...

...to antenna 130. Antenna 130 then sends the WAP signals over air interface 120 to **mobile** device 1 10. The network of figure 1 has been simplified for ease of understanding. One skilled in the art will recognize that the network of figure 1 could include **base stations**, **mobile** switching centers, and the like.

Since WAP is designed as a connectionless protocol, WAP, like...

...application must be maintained by the application itself.

Figure 2 illustrates conventional signaling between a **server** and client in connectionless protocols such as WAP and IP. Typically, the client 210 will initiate a session with **server** 220 by sending an Initiate Session message 230 to the **server** 220. The **server** 220 will respond with a Session Initiated message 235 containing the **session ID** for the connection between the client 210 and **server** 220. Now that the session has been initiated, the client 210 sends a Request for Information message 240, including the session ID, to the **server** 220. In response, the **server** 220 sends an Information Response message 245, including the session ID to the client 210...

...by the broken lines, the client 210 may send more Information Request messages and the **server** 220 continues to reply with Information Response messages. When the client 210 desires to terminate the session with the **server** 220, the client 210 sends an End Session message 250. In response the server 220...

11/3,K/23 (Item 15 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00549993 **Image available**
METHOD, SUBSCRIBER DEVICE, WIRELESS ROUTER, AND COMMUNICATION SYSTEM EFFICIENTLY UTILIZING THE RECEIVE/TRANSMIT SWITCHING TIME
PROCEDE, DISPOSITIF D'ABONNE, ROUTEUR HERTZIEN ET SYSTEME DE COMMUNICATION EXPLOITANT EFFICACEMENT LE TEMPS DE COMMUTATION RECEPTION/EMISSION
Patent Applicant/Assignee:
MOTOROLA INC,
Inventor(s):
JONES Wesley Stuart,
PAYNE William A III,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200013366 A1 **20000309** (WO 0013366)
Application: WO 99US19944 19990830 (PCT/WO US9919944)
Priority Application: US 98143714 19980831
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
JP KR AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 9676
Patent and Priority Information (Country, Number, Date):
Patent: ... **20000309**
Fulltext Availability:
Detailed Description
Publication Year: **2000**

Detailed Description
... merely necessary for the subscriber device to be synchronized to the count of the wireless **router** , that is to say for the subscriber device to have prior knowledge of the byte count of the **wireless router** for any given item in a downstream channel allocation map.

To achieve this synchronization, a...

...calculated during registration and corresponds to the relative distance between the subscriber device and the **router base station** . Thus the upstream transmissions can be synchronized to the downstream byte counts. The byte count...
...sent in the downstream channel allocation map or as an explicit management type message.

Each **session ID** in column 504 is unique for the entire autonomous system, i.e. it uniquely defines the connection between the subscriber device or other subscriber device and an edge **router** in the system. If a subscriber device roams to another **wireless router** (e.g. from **wireless router** 30 to **wireless router** 32), the same **session ID** will be used for the connection.

In the example given, frame type 01 is a...

11/3,K/24 (Item 16 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00533615 **Image available**
A METHOD AND A SYSTEM FOR TRANSMITTING A COOKIE
PROCEDE ET SYSTEME DE TRANSMISSION D'UN MESSAGE DE QUALIFICATION D'AUDIENCE
Patent Applicant/Assignee:
TELEFONAKTIEBOLAGET LM ERICSSON (publ),
Inventor(s):
NILSSON Mikael,
ANDERSSON Fredrik,
TORSTENSSON Soren,
BERGLUND Magnus,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9964967 A1 **19991216**
Application: WO 99SE992 19990608 (PCT/WO SE9900992)
Priority Application: SE 982098 19980612
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 2321

Patent and Priority Information (Country, Number, Date):
Patent: ... **19991216**
Fulltext Availability:
Detailed Description
Publication Year: **1999**

Detailed Description
... the World
Wide Web (WWW) or the Internet 68 to which a number of remote **servers** 70 are connected,
The proxy **server** 66 can also be located at other locations in the system or distributed over the...

...with the radio base station,
In a preferred embodiment for a GSM system the proxy **server** 66 is located together with the HLR and the VLR and possibly also some of the radio **base stations** are provided with cache **servers** for caching cookie information. Similar arrangements can of course be made for other **cellular** radio systems,
When the user terminal 52 accesses a site for the first time in such a remote **server** 70, a cookie may be transmitted back towards the user terminal 52, As stated above a cookie is a small piece of information, often no more than a short **session identifier** , that the HTTP **server** sends to the browser and may consist of up to 4 kbyte of information.

The cookie is intercepted by the proxy **server** 66, which stores the cookie together with information regarding the URL that has issued the...

11/3,K/25 (Item 17 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00484931 **Image available**

TRANSPORTING MULTIPROTOCOL DATAGRAMS
TRANSPORT DE DATAGRAMMES MULTIPROTOCOLE
Patent Applicant/Assignee:
  NORTHERN TELECOM LIMITED,
  BRUECKHEIMER Simon Daniel,
Inventor(s):
  BRUECKHEIMER Simon Daniel,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 9916283 A1 **19990401**
  Application: WO 98GB2807 19980921 (PCT/WO GB9802807)
  Priority Application: GB 9720130 19970922
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
  CA JP US AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 5111

Patent and Priority Information (Country, Number, Date):
  Patent: ... **19990401**
Fulltext Availability:
  Detailed Description
Publication Year: **1999**

Detailed Description
... of TCP/IP header suppression significantly improves the efficient use of
bandwidth. Further, the adapter/ **router** can map alternately several PP (point to point) sessions. Advantageously, the same CID is used so that the AAL2 relay functions as a virtual **router** .

In the embodiment shown in figure 1 1 and the associated logic diagram 1 la...can be used
where it is desirable too aggregate many PPP sessions, for example between **routers** , whilst minimising the number of minichannels used. This
has particular advantage in **mobile** applications.

In figure 1 1 , the CID is established by the ANP for single or...

...identify the session and to perform
authentication and control. This is also of advantage in **mobile** applications
where a **base station** may need to isolate data from several mobiles to ensure that voice is given a higher QoS than the collective data. The MID can be used to distinguish the PPP2 **session ID** , the PID and IP **session** as a multiplex of datagrams.

In the modification indicated in Fig 12 and in the...

...routing network. Multiple H.323 sessions are possible and efficient routes can be created to **ISP** networks.

Referring now to figure 13, this shows an arrangement for transporting encapsulated PPP traffic...

11/3,K/26 (Item 18 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

00307942 **Image available**
PCS POCKET PHONE/MICROCELL COMMUNICATION OVER-AIR PROTOCOL
PROTOCOLE HERTZIEN DE COMMUNICATIONS PAR TELEPHONE DE POCHE OU A SYSTEME MICRO-CELLULAIRE
Patent Applicant/Assignee:
  OMNIPOINT CORPORATION,
Inventor(s):

ANDERSON Gary B,
JENSEN Ryan N,
PETCH Bryan K,
PETERSON Peter O,

Patent and Priority Information (Country, Number, Date):
Patent: WO 9526094 A1 **19950928**
Application: WO 95US3500 19950320 (PCT/WO US9503500)
Priority Application: US 94215306 19940321; US 94284053 19940801

Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
CA JP KR AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English
Fulltext Word Count: 85526

Patent and Priority Information (Country, Number, Date):
Patent: ... **19950928**

Fulltext Availability:
Detailed Description

Publication Year: **1995**

Detailed Description

... be performed remotely through either the control channel on the digital link resident in the **base station** 104 or a dial up modem for some implementations. Such diagnostics may be performed on each component board of the **base station** 104. In addition, the **base stations** 104 and **base station** controllers 105 may be remotely monitored and downloaded with updated software as required. Similarly, user...

...for maintenance purposes or for system upgrades.

The user stations 102 comprise in one embodiment **mobile** handsets capable of multi-band and/or multi-mode operation. The user stations 102 may...

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File 347:JAPIO Nov 1976-2004/Jul(Updated 041102)
         (c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200470
         (c) 2004  Thomson Derwent

Set     Items   Description
S1     492218   MOBILE OR PORTABLE OR WIRELESS? OR CELLULAR
S2      53451   BASESTATION? ? OR BASE()STATION? ? OR ACCESS()POINT? ? OR -
             POINT(1W)ACCESS
S3    1187987   NAS OR SERVER? ? OR RADIUS OR ISP OR ISPS OR (INTERNET OR -
             NETWORK OR COMMUNICATION? ? OR TELECOMMUNICATION? ?)(2W)PROVI-
             DER? ? OR SWITCH OR SWITCHES OR ROUTER? ?
S4      18023   (SESSION? ? OR TRANSACTION? ? OR CONNECTION? ? OR TUNNEL??-
             ??)(3N)(ID OR IDS OR IDENTIFIER? ? OR IDENTIFICATION OR NUMBE-
             R? ? OR NUMERAL? ? OR CODE? ? OR NAME? ? OR LABEL? ? OR DESIG-
             NATION? ? OR DESCRIPTOR? ?)
S5         71   S1 AND S2 AND S3 AND S4
S6        103   S1 AND S2 AND S3 AND SESSION? ?
S7        167   S5:S6
S8         79   S7 AND AC=US/PR
S9         39   S8 AND AY=(1970:2001)/PR
S10        50   S7 AND PY=1970:2001
S11        71   S9:S10
```

11/5/4 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO

06797564 **Image available**
CDMA **MOBILE** COMMUNICATION SYSTEM

PUB. NO.: 2001-025046 [JP 2001025046 A]
PUBLISHED: January 26, 2001 (**20010126**)
INVENTOR(s): ENDO HIRONARI
APPLICANT(s): NEC CORP
APPL. NO.: 11-195330 [JP 99195330]
FILED: July 09, 1999 (19990709)
INTL CLASS: H04Q-007/22; H04Q-007/24; H04Q-007/26; H04Q-007/30

ABSTRACT
PROBLEM TO BE SOLVED: To provide a system for minimizing selective synthesis processing standby delay in the case of extending a subscriber's line.

SOLUTION: In this **mobile** communication system provided with a **mobile** object terminal 101, a radio **base station** 102 connected through a radio channel to the **mobile** object terminal 101, **base station** controllers 104 and 105 for controlling the radio **base station** 102 and a **switch** board 108, the incoming selective synthesis devices 106 and 107 of the **base station** controllers are provided with a through mode for transmitting received incoming data to the switchboard 108 as they are without storing them in a buffer as an operation mode. At the time of receiving data received from the radio **base station** 102 during communication at present and the incoming selective synthesis device housed in the other **base station** controller, in the case that the **number** of communication **connections** is one, the through mode is attained and the received data are transmitted to the switchboard as they are.

11/5/5 (Item 5 from file: 347)
DIALOG(R)File 347:JAPIO

06764382 **Image available**
METHOD AND SYSTEM FOR RADIO COMMUNICATION AND CONSTITUTING DEVICE FOR SAME

PUB. NO.: 2000-350253 [JP 2000350253 A]
PUBLISHED: December 15, 2000 (**20001215**)
INVENTOR(s): MACHIDA MASAJI
ENDO HIDENORI
KUWAE HITOSHI
APPLICANT(s): NTT DATA CORP
APPL. NO.: 11-155625 [JP 99155625]
FILED: June 02, 1999 (19990602)
INTL CLASS: H04Q-007/36

ABSTRACT
PROBLEM TO BE SOLVED: To provide a radio communication system which can make a premium communication by temporarily expanding a communication coverage area even if a normal communication is disabled because of a busy communication line.

SOLUTION: If a normal communication is disabled because of a busy state, dial buttons '19*' on a **portable** terminal 20 are pressed continuously for 2 to 3 seconds to send a tone signal and thus a premium communication state is established with a **base station** 10. The **base station** 10 expands its communication coverage area in response to the reception of the tone signal to enable a premium communication. Further, the **base station** 10 when making a **switch connection** between the allocated **number** of the **portable** terminal 20 and the allocated number (telephone number) of a

communication party manages the telephone charge of the user by a user management part, however charges the user with a charging system which is more expensive than that of a normal communication in the premium communication state.

11/5/7 (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO

06553247 **Image available**
MOBILE TCP AND METHOD FOR SETTING AND MAINTAINING **MOBILE** TCP CONNECTION

PUB. NO.: 2000-138976 [JP 2000138976 A]
PUBLISHED: May 16, 2000 (**20000516)**
INVENTOR(s): MILO OSHIKKU
APPLICANT(s): LUCENT TECHNOL INC
APPL. NO.: 11-307258 [JP 99307258]
FILED: October 28, 1999 (19991028)
PRIORITY: 179969 [US 98179969], US (United States of America), October 28, 1998 (19981028)
INTL CLASS: H04Q-007/38; H04Q-007/34

ABSTRACT
PROBLEM TO BE SOLVED: To set and maintain **mobile** Transmission Control Protocol(TCP) connection under a **mobile** environment where an IP address of a **mobile** terminal/host is continually changed even after the setting of **mobile** TCP connection by using a **mobile** TCP **connection identification** to update the Internet Protocol(IP) address every time the **mobile** terminal/host roams in a network and the IP address of the **mobile** terminal/host changes.
SOLUTION: A plurality of cells 12 in communication via the Internet include one **base station** 18 and a plurality of **mobile** terminal/host T/H 20. Each T/H 20 has a permanent domain name to identify itself and is provided with a domain name **server** (DNS) to register a domain name under a domain name of a new class. The DNS stores and updates an IP address of the T/H 20, and when the T/H 20 roams in the Internet to connect itself to a new **base station** 18, the T/H 20 acquires a new IP address and the DNS updates the IP address of the T/H 20 to the new IP address.

11/5/12 (Item 12 from file: 347)
DIALOG(R)File 347:JAPIO

05824818 **Image available**
NETWORK CONNECTION METHOD AND NETWORK MANAGEMENT METHOD

PUB. NO.: 10-107918 [JP 10107918 A]
PUBLISHED: April 24, 1998 (**19980424)**
INVENTOR(s): SAMEJIMA YUMIKO
APPLICANT(s): HITACHI SOFTWARE ENG CO LTD [472485] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-253545 [JP 96253545]
FILED: September 25, 1996 (19960925)
INTL CLASS: [6] H04M-011/00; H04L-012/24; H04L-012/26; H04M-003/00; H04M-003/42; H04M-015/00
JAPIO CLASS: 44.4 (COMMUNICATION -- Telephone); 36.4 (LABOR SAVING DEVICES -- Service Automation); 44.3 (COMMUNICATION -- Telegraphy)

ABSTRACT
PROBLEM TO BE SOLVED: To reduce opportunity of connection failure by allowing an information processing unit that manages the network to receive connection information to an **access point** from each **mobile**

communication terminal, to send a collected result to each **mobile** communication terminal, allowing a terminal user to select an **access point** based on the collected information and to try the connection thereto.

SOLUTION: A **mobile** communication terminal equipment 107 accesses an internal network 105 consisting of a network management system 101, an access object machine 104, **access points** 102, 108, 109 and a **router** 103 or the like via a public line 106. When the **mobile** communication terminal 107 connects to the internal network 105, the network management system 101 acquires connection information such as an **access point number** including **connection** failure before the connection, an access object machine name, and time and collects the information and sends the collection result of each **access point** and relational information such as a traffic status and a machine load factor to the **mobile** communication terminal equipment 107 every time when the **mobile** communication terminal 107 is connected to the internal network 105. The terminal user selects an **access point** based on the information and tries to make connection to the network via the selected **access point** .

11/5/13 (Item 13 from file: 347)
DIALOG(R)File 347:JAPIO

04710351 **Image available**
MOBILE COMMUNICATIONS EXCHANGE METHOD AND **MOBILE** COMMUNICATIONS EXCHANGE

PUB. NO.: 07-030951 [JP 7030951 A]
PUBLISHED: January 31, 1995 (**19950131)**
INVENTOR(s): SHINAGAWA NORITERU
APPLICANT(s): N T T IDOU TSUUSHINMOU KK [000000] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 05-174267 [JP 93174267]
FILED: July 14, 1993 (19930714)
INTL CLASS: [6] H04Q-007/22; H04Q-007/24; H04Q-007/26; H04Q-007/30; H04J-003/06
JAPIO CLASS: 44.2 (COMMUNICATION -- Transmission Systems); 26.2 (TRANSPORTATION -- Motor Vehicles); 44.4 (COMMUNICATION -- Telephone)

ABSTRACT

PURPOSE: To reduce number of codec circuits than a radio channel number.

CONSTITUTION: An exchange **switch** 106 is used to make exchange connection between plural communications lines 104 to a **base station** and a multiplex signal side of plural grouping circuits 110. Plural codec circuits 109 are connected to each grouping circuit 110 and a high efficiency coding signal is multiplexed as a signal in the unit of exchange speed and fed to the exchange **switch** 106, and conversely the multiplex signal is demultiplexed and distributed to the codec circuit 109. A telephone set 111 is in exchange **connection** to the **codec** circuit 109.

11/5/15 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

016529171 **Image available**
WPI Acc No: 2004-687737/200467
XRPX Acc No: N04-544650
Convergent wireless **communication system, has** base station **controller initiating call handle with one** mobile **switching center and another switching center initiating search for subscriber device to former switching center**
Patent Assignee: PATEL J (PATE-I)
Inventor: PATEL J

Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6795708	B1	20040921	US 2001791724	A	20010226	200467	B

Priority Applications (No Type Date): US 2001791724 A 20010226
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6795708	B1		20	H04Q-007/20	

Abstract (Basic): US 6795708 B1

NOVELTY - The system has a base transceiver station (102) assigning a channel to a **mobile** subscriber device upon receiving an acknowledgement of available channel from a **base station** controller (104). The controller initiates a call handle with one **mobile** switching center upon receiving a service request from the station. Another switching center initiates a search for a different subscriber device to the former switching center.

USE - Used for **wireless** voice and data services in **wireless** telecommunication industry.

ADVANTAGE - The communication system has flexibility to provide voice and data services to traditional public switched telephone network (PSTN) and Internet protocol (IP) backbone networks. The system has distributed architecture and is easily scalable for small to large deployment for **wireless** carriers. The architecture delivers interoperability between core network and external networks with support of many protocols e.g. transaction capabilities application part (TCAP), **mobile** application part (MAP) and **session** initiation protocol (SIP).

DESCRIPTION OF DRAWING(S) - The drawing shows a diagrammatic view of relationship between a convergent box and a communication system environment.

Convergent box (100)
Base transceiver station (102)
Base station controller (104)
Mobile switching center (106)
Visitor location register (108)
pp; 20 DwgNo 1/14

Title Terms: CONVERGE; **WIRELESS** ; COMMUNICATE; SYSTEM; BASE; STATION; CONTROL; INITIATE; CALL; HANDLE; ONE; **MOBILE** ; **SWITCH** ; **SWITCH** ; INITIATE; SEARCH; SUBSCRIBER; DEVICE; FORMER; **SWITCH**
Derwent Class: T01; W01; W02
International Patent Class (Main): H04Q-007/20
International Patent Class (Additional): H04B-007/212
File Segment: EPI

11/5/16 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

016347295 **Image available**
WPI Acc No: 2004-505384/200448
Related WPI Acc No: 2003-380902; 2003-420157; 2003-420215; 2003-420223; 2003-429939; 2003-439940; 2003-448160; 2003-448161; 2003-448163; 2003-448164; 2003-456751; 2003-467109; 2003-467110; 2003-467112; 2003-467113; 2003-480051; 2003-480061; 2003-480062; 2003-480063; 2003-492404; 2003-710041; 2004-120807; 2004-167974; 2004-314775; 2004-339937; 2004-355329
XRPX Acc No: N04-399138

Multimedia communication management system in packet switched LAN, establishes logical channel for dual tone multifrequency channel transmission based on receiving session **signaling identifying LAN address**

Patent Assignee: TELEWARE INC (TELE-N)
Inventor: ADAMS C L; LEWIS C E; NEBIKER R M; ROSS R A; SOJKA M L
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040114577	A1	20040617	US 2001961532	A	20010924	200448 B
			US 2001543	A	20011023	
			US 2003624255	A	20030722	

Priority Applications (No Type Date): US 2003624255 A 20030722; US 2001961532 A 20010924; US 2001543 A 20011023

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20040114577	A1		39	H04L-012/66	CIP of application US 2001961532 CIP of application US 2001543

Abstract (Basic): US 20040114577 A1

NOVELTY - The public switched telephone network (PSTN) gateway establishes a logical channel over the packet switched LAN with the real time communication device based on receiving **session** signaling, identifying LAN address associated with the real time communication device. A translation unit provides dual tone multifrequency signal over the logic channel based on data received from real time communication device.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of providing a communication interface between telephone line coupled between control unit and public switched telephone **network** (PSTN) service **provider** central office and a logical channel between the control unit and a real time communication device over a packet switched local area network.

USE - For multimedia communication management in packet switched local area network (LAN) providing voice-over-Internet protocol (VOIP) networking with real time communication devices such as subscriber telephony station, **wirelessly** telephony devices in office environment.

ADVANTAGE - Provides simulated key **switch** private telephone system user experience in VOIP environment by using simple technique.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the control unit.

control unit (12)

pp; 39 DwgNo 5/24

Title Terms: COMMUNICATE; MANAGEMENT; SYSTEM; PACKET; **SWITCH** ; LAN; ESTABLISH; LOGIC; CHANNEL; DUAL; TONE; MULTIFREQUENCY; CHANNEL; TRANSMISSION; BASED; RECEIVE; **SESSION** ; IDENTIFY; LAN; ADDRESS

Derwent Class: T01; W01

International Patent Class (Main): H04L-012/66

File Segment: EPI

11/5/17 (Item 4 from file: 350)

016229032 **Image available**

WPI Acc No: 2004-386921/200436

XRPX Acc No: N04-307872

Enterprise e.g., airport communication system, has server **selects information based on positioning of** wireless **communication device within enterprise and transfers to device through transceiver**

Patent Assignee: SPRINT COMMUNICATIONS CO LP (SPRI-N)

Inventor: COOK F S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6725050	B1	20040420	US 2000578970	A	20000525	200436 B

Priority Applications (No Type Date): US 2000578970 A 20000525

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6725050	B1		17	H04Q-007/20	

Abstract (Basic): US 6725050 B1

NOVELTY - The system has a **wireless** transceiver located within an enterprise and received a hand-off for a **wireless** communication device (102) from a public network **base station** in response to the device entering an enterprise cell. The cell is located in a public network cell of the station. A **server** selects information based on a positioning of the device within the enterprise and transfers to the device through the transceiver.

DETAILED DESCRIPTION - The **wireless** transceiver communicates over an air interface with the **wireless** communication device. An INDEPENDENT CLAIM is also included for a method of operating a communication system.

USE - Used for providing a public telephone, Internet, and private data connectivity to an enterprise e.g., retail establishment, educational establishment, airport, medical establishment, and government facility and for providing a selected information e.g., an Internet **session** , menu, map, product location, product information, product order information, product payment information and promotion information to an enterprise user.

ADVANTAGE - The system effectively operates with **wireless** communication devices, thereby providing more or different information about an enterprise to the user.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of a communication system for a **wireless** enterprise communication.

Communication device (102)
Public network cell (110)
Public network **base station** (111)
Enterprise (120)
Network (130)
pp; 17 DwgNo 1/10

Title Terms: AIRPORT; COMMUNICATE; SYSTEM; SERVE; SELECT; INFORMATION; BASED; POSITION; **WIRELESS** ; COMMUNICATE; DEVICE; TRANSFER; DEVICE; THROUGH; TRANSCEIVER
Derwent Class: T01; W01; W02; W06
International Patent Class (Main): H04Q-007/20
File Segment: EPI

11/5/19 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015649844 **Image available**
WPI Acc No: 2003-712027/200367
Related WPI Acc No: 2003-660746; 2003-660750; 2003-660779; 2003-670498; 2003-678484; 2003-804494
XRPX Acc No: N03-569570

Licensed/unlicensed wireless **system integrating method, involves sending indication from unlicensed service area** base station **when subscriber device moves from unlicensed service area to licensed service area**

Patent Assignee: MOHAMMED J (MOHA-I)
Inventor: MOHAMMED J
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030176186	A1	20030918	US 2001271766	P	20010226	200367 B
			US 2001271767	P	20010226	
			US 2001271768	P	20010226	
			US 2001271769	P	20010226	
			US 2001912881	A	20010724	
			US 2002115767	A	20020402	

Priority Applications (No Type Date): US 2002115767 A 20020402; US 2001271766 P 20010226; US 2001271767 P 20010226; US 2001271768 P 20010226 ; US 2001271769 P 20010226; US 2001912881 A 20010724
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030176186	A1		23	H04Q-007/20	Provisional application US 2001271766

Provisional application US 2001271767
Provisional application US 2001271768
Provisional application US 2001271769
Cont of application US 2001912881

Abstract (Basic): US 20030176186 A1

NOVELTY - The method involves establishing a communication **session** through a landline to link the **session** to a subscriber device (12) through an unlicensed **wireless** system (16). An indication is sent from an unlicensed service area **base station** (18) when the device moves from the unlicensed to a licensed **wireless** system service area (20). The **session** is transitioned from the unlicensed to the licensed area.

USE - Used for integrating voice and data telecommunication services across licensed and unlicensed **wireless** systems.

ADVANTAGE - The communication **session** is transitioned from the unlicensed service area to the licensed service area without disrupting the communication **session** and allows the user to roam outside the range of the unlicensed **base station** .

DESCRIPTION OF DRAWING(S) - The drawing shows an apparatus for integrating a licensed **wireless** system and an unlicensed **wireless** system.

Subscriber device (12)
Unlicensed **wireless** system (16)
Unlicensed service area **base station** (18)
Licensed service area (20)
System **server** (24)
pp; 23 DwgNo 1/13

Title Terms: **WIRELESS** ; SYSTEM; INTEGRATE; METHOD; SEND; INDICATE; SERVICE ; AREA; BASE; STATION; SUBSCRIBER; DEVICE; MOVE; SERVICE; AREA; SERVICE; AREA

Derwent Class: T01; W01; W02

International Patent Class (Main): H04Q-007/20

File Segment: EPI

11/5/20 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015608341 **Image available**

WPI Acc No: 2003-670498/200363

Related WPI Acc No: 2003-660746; 2003-660750; 2003-660779; 2003-678484; 2003-712027; 2003-804494

XRPX Acc No: N03-535339

Server **for unlicensed and licensed** wireless **communication system, stores instruction to coordinate routing of current communication** session **on licensed communication system to selected unlicensed communication** base station

Patent Assignee: MOHAMMED J (MOHA-I)

Inventor: MOHAMMED J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030115261	A1	20030619	US 2001271766	P	20010226	200363 B
			US 2001271767	P	20010226	
			US 2001271768	P	20010226	
			US 2001271769	P	20010226	
			US 2001912884	A	20010724	
			US 2002115774	A	20020402	

Priority Applications (No Type Date): US 2002115774 A 20020402; US 2001271766 P 20010226; US 2001271767 P 20010226; US 2001271768 P 20010226 ; US 2001271769 P 20010226; US 2001912884 A 20010724

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030115261	A1		23	G06F-015/16	Provisional application US 2001271766

Provisional application US 2001271767

Provisional application US 2001271768
Provisional application US 2001271769
Cont of application US 2001912884

Abstract (Basic): US 20030115261 A1

NOVELTY - A memory stores instructions to identify whether a subscriber device (12) is entering a service region of selected unlicensed communication **base station** (18). The memory stores instructions to co-ordinate the routing of a communication **session** as a licensed **wireless** communication system (20) to a selected unlicensed communication **base station** .

USE - For integrating unlicensed **wireless** communication system and licensed **wireless** communication system.

ADVANTAGE - A higher quality service of data communication at low cost, between licensed **wireless** system and unlicensed **wireless** system is achieved.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the **server** .

subscriber device (12)
unlicensed communication system (16)
base station (18)
licensed communication system (20)
server (24)
internet (30)
pp; 23 DwgNo 1/13

Title Terms: SERVE; **WIRELESS** .; COMMUNICATE; SYSTEM; STORAGE; INSTRUCTION; COORDINATE; ROUTE; CURRENT; COMMUNICATE; **SESSION** ; COMMUNICATE; SYSTEM; SELECT; COMMUNICATE; BASE; STATION

Derwent Class: T01; W01

International Patent Class (Main): G06F-015/16

File Segment: EPI

11/5/21 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015598591 **Image available**

WPI Acc No: 2003-660746/200362

Related WPI Acc No: 2003-660750; 2003-660779; 2003-670498; 2003-678484; 2003-712027; 2003-804494

XRPX Acc No: N03-527032

Unlicensed base station **provision method in licensed** wireless **communication system, involves routing service profile from system** server **to home location register, to direct calls to unlicensed** base station

Patent Assignee: MOHAMMED J (MOHA-I)

Inventor: MOHAMMED J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030119480	A1	20030626	US 2001271766	P	20010226	200362	B
			US 2001271767	P	20010226		
			US 2001271768	P	20010226		
			US 2001271769	P	20010226		
			US 2001912882	A	20010724		
			US 2002115835	A	20020402		

Priority Applications (No Type Date): US 2002115835 A 20020402; US 2001271766 P 20010226; US 2001271767 P 20010226; US 2001271768 P 20010226 ; US 2001271769 P 20010226; US 2001912882 A 20010724

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030119480	A1		23	H04M-001/66	Provisional application US 2001271766
					Provisional application US 2001271767
					Provisional application US 2001271768
					Provisional application US 2001271769
					Cont of application US 2001912882

Abstract (Basic): US 20030119480 A1

NOVELTY - The information at a **server** subscriber device is received, and the service profile is downloaded to an unlicensed **wireless** communication **base station** in a licensed **wireless** communication system, and a system **server** . The downloaded service profile is routed to a home location register to direct the calls initiated to the unlicensed **base station** in response to commands from system **server** .

USE - For provisioning unlicensed **base station** within licensed **wireless** communication system.

ADVANTAGE - The subscriber device receives high quality voice or data services at relatively low cost. The same communication **session** is maintained without interruption by transitioning to the licensed **wireless** service provided by **cellular** network, even if the user of the subscriber device roams outside unlicensed **wireless** service coverage area.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the licensed **wireless** system integrated with unlicensed **wireless** system.

pp; 23 DwgNo 1/13

Title Terms: BASE; STATION; PROVISION; METHOD; **WIRELESS** ; COMMUNICATE; SYSTEM; ROUTE; SERVICE; PROFILE; SYSTEM; SERVE; HOME; LOCATE; REGISTER; DIRECT; CALL; BASE; STATION

Derwent Class: T01; W01; W02

International Patent Class (Main): H04M-001/66

File Segment: EPI

11/5/22 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015554128 **Image available**

WPI Acc No: 2003-616283/200358

XRPX Acc No: N03-490715

Secure encryption of standards-based wireless **local area network establishment method involves authenticating clients for access to network, and transmitting encryption key pair to authenticated client**

Patent Assignee: ENTERASYS NETWORKS INC (ENTE-N); DURAND R P (DURA-I); NELSON D B (NELS-I); WEST J W (WEST-I)

Inventor: DURAND R P; NELSON D B; WEST J W

Number of Countries: 100 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030095663	A1	20030522	US 2001332101	P	20011121	200358	B
			US 2002116447	A	20020404		
WO 200347158	A1	20030605	WO 2002US37112	A	20021119	200358	
AU 2002346442	A1	20030610	AU 2002346442	A	20021119	200419	

Priority Applications (No Type Date): US 2001332101 P 20011121; US 2002116447 A 20020404

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030095663	A1		7	H04L-009/00	Provisional application US 2001332101
WO 200347158	A1	E		H04L-009/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

AU 2002346442 A1 H04L-009/00 Based on patent WO 200347158

Abstract (Basic): US 20030095663 A1

NOVELTY - A network **session** between the clients (C1-C4) and the

network (10) is initiated. The network **server** authenticates the clients for access to network through **access points** . A pair of encryption keys is generated and transmitted to the authenticated clients. The transmitted key pair is periodically replaced with newly generated pair.

USE - For establishing secure encryption of standards-based **wireless** local area networks (WLANs) exchanges.

ADVANTAGE - An improved or enhanced security is provided to minimize the detection of wired equivalent privacy (WEP) keys during **wireless** signal exchanges.

DESCRIPTION OF DRAWING(S) - The figure shows an explanatory view of the secure encryption of standards-based WLAN establishment process.

network (10)

clients (C1-C4)

pp; 7 DwgNo 1/3

Title Terms: SECURE; ENCRYPTION; STANDARD; BASED; **WIRELESS** ; LOCAL; AREA; NETWORK; ESTABLISH; METHOD; AUTHENTICITY; CLIENT; ACCESS; NETWORK; TRANSMIT; ENCRYPTION; KEY; PAIR; AUTHENTICITY; CLIENT

Derwent Class: T01; W01

International Patent Class (Main): H04L-009/00

International Patent Class (Additional): H04K-001/02; H04K-001/022

File Segment: EPI

11/5/23 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015358416 **Image available**

WPI Acc No: 2003-419354/200339

XRPX Acc No: N03-334737

Mobile **node security key generation method, for generation of authenticators as function of random** numbers , session identifiers **and generation of security key as function of predetermined security key**

Patent Assignee: BUDDHIKOT M M (BUDD-I); GARAY J A (GARA-I); MILLER S C (MILL-I); SALGARELLI L (SALG-I)

Inventor: BUDDHIKOT M M; GARAY J A; MILLER S C; SALGARELLI L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030051140	A1	20030313	US 2001318736	P	20010913	200339	B
			US 2002238373	A	20020910		

Priority Applications (No Type Date): US 2001318736 P 20010913; US 2002238373 A 20020910

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030051140	A1		15	H04L-009/00	Provisional application US 2001318736

Abstract (Basic): US 20030051140 A1

NOVELTY - The method involves generating an authenticator being a function of random **numbers** , **session** and **access point identifier** at **mobile** node in response to a request for authentication. The validity of the authenticator is checked and another authenticator is generated and compared with the interim authenticator. The security key is generated as a function of predetermined security key when the two authenticators matches.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following.

(a) a system for authenticating a **mobile** node and a network

(b) a computer readable medium.

USE - Used in **wireless** local area networks.

ADVANTAGE - The method provides a simple authentication scheme and is suitable for public networks that typically require per user, per **session** keys.

DESCRIPTION OF DRAWING(S) - The drawing shows a data flow for authentication, dynamic key generation and exchange between a **mobile** node and a network.

Foreign network (12)

Home **server** (16)
Foreign **server** (14)
Mobile node (22)
Home network (26)
pp; 15 DwgNo 2/5
Title Terms: **MOBILE** ; NODE; SECURE; KEY; GENERATE; METHOD; GENERATE; FUNCTION; RANDOM; NUMBER; **SESSION** ; IDENTIFY; GENERATE; SECURE; KEY; FUNCTION; PREDETERMINED; SECURE; KEY
Derwent Class: T01; W01
International Patent Class (Main): H04L-009/00
File Segment: EPI

11/5/25 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015341522 **Image available**
WPI Acc No: 2003-402460/200338
Related WPI Acc No: 2003-596768; 2004-365374; 2004-551511
XRPX Acc No: N03-321063
Voice-controlled wireless **communication system has badge that communicates using** wireless **protocol with several** wireless access points **connected to** server **through network**
Patent Assignee: VOCERA COMMUNICATIONS INC (VOCE-N); SHOSTAK R (SHOS-I)
Inventor: SHOSTAK R
Number of Countries: 101 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030045279	A1	20030306	US 2001947235	A	20010905	200338	B
WO 200321990	A1	20030313	WO 2002US28096	A	20020904	200338	
EP 1437022	A1	20040714	EP 2002797849	A	20020904	200446	
			WO 2002US28096	A	20020904		
AU 2002332828	A1	20030318	AU 2002332828	A	20020904	200452	

Priority Applications (No Type Date): US 2001947235 A 20010905
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030045279	A1		23	H04Q-007/20	
WO 200321990	A1	E		H04Q-007/30	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

EP 1437022	A1	E		H04Q-007/30	Based on patent WO 200321990

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

AU 2002332828	A1			H04Q-007/30	Based on patent WO 200321990

Abstract (Basic): US 20030045279 A1
NOVELTY - A battery-powered badge (32) communicates using a **wireless** protocol with several **wireless access points** (34) connected to a **server** (36) through a network (38). The user initiates a telephone call by issuing a vocal command via the badge and then conducts the call using the microphone and speaker of the badge. A central computer controls the communications.
DETAILED DESCRIPTION - Call recipients are searched for in the **server** database. Badged users are located in the system and the call to their badge is set up. If a call recipient is not a badged system user, the **server** establishes a communication **session** using their telephone **number** .
INDEPENDENT CLAIMS are also included for the following:
(1) voice-controlled **wireless** communication unit; and
(2) a method for locating a user of a **wireless** communication system.

USE - For providing **portable** **wireless** access to communication networks.

ADVANTAGE - The badge is **portable** , lightweight and supports hands-free, near full duplex voice communications using a microphone and speaker.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic diagram of the **wireless** communication system.

badge (32)

wireless **access** **points** (34)

server (36)

network (38)

pp; 23 DwgNo 1/10

Title Terms: VOICE; CONTROL; **WIRELESS** ; COMMUNICATE; SYSTEM; BADGE; COMMUNICATE; **WIRELESS** ; PROTOCOL; **WIRELESS** ; ACCESS; POINT; CONNECT; SERVE; THROUGH; NETWORK

Derwent Class: T01; W01; W02; W04

International Patent Class (Main): H04Q-007/20; H04Q-007/30

File Segment: EPI

11/5/26 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015270047 **Image available**

WPI Acc No: 2003-330976/200331

Related WPI Acc No: 2003-247833; 2003-312234

XRPX Acc No: N03-265077

Wireless **tier for short-range** wireless **system, has** wireless **application** server **which stores** session **information for** wireless **device after authenticating** wireless **device**

Patent Assignee: BEA SYSTEMS INC (BEAS-N); BUZZARD G (BUZZ-I); FISHMAN D (FISH-I); MUKHERJEA S (MUKH-I); PACLAT C (PACL-I); WOLTERS H (WOLT-I)

Inventor: BUZZARD G; FISHMAN D; MUKHERJEA S; PACLAT C; WOLTERS H

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030017826	A1	20030123	US 2001306097	P	20010717	200331	B
			US 2001949594	A	20010910		
AU 2002327250	A1	20030303	AU 2002327250	A	20020716	200452	

Priority Applications (No Type Date): US 2001306097 P 20010717; US 2001949594 A 20010910; US 2001306129 P 20010717; US 2001306130 P 20010717 ; US 2001949912 A 20010910; US 2001950192 A 20010910

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030017826	A1		17	H04Q-007/20	Provisional application US 2001306097
AU 2002327250	A1			G06F-015/16	Based on patent WO 200309158

Abstract (Basic): US 20030017826 A1

NOVELTY - A **wireless** **server** (110) tracks user and **session** information of the **wireless** device (102), after authenticating the device. The **wireless** device receives response from the **server** when query is output by the **wireless** device to the **server** . The **server** formats and forwards the response to **wireless** device.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) system for communicating between **wireless** user device and back-end device;

(2) system for allowing **wireless** user device to communicate with application **server** ;

(3) method of communicating information between **wireless** user device and back-end device;

(4) method for pushing information to **wireless** user device; and

(5) method for receiving information from application **server** .

USE - **Wireless** tier for short-range **wireless** system, used in commerce and personalization applications.

ADVANTAGE - Enhances end user experience, based upon information known at **wireless server** .

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the **wireless** system.

wireless server (110)

wireless device (120)

pp; 17 DwgNo 1/5

Title Terms: **WIRELESS** ; TIER; SHORT; RANGE; **WIRELESS** ; SYSTEM; **WIRELESS** ; APPLY; SERVE; STORAGE; **SESSION** ; INFORMATION; **WIRELESS** ; DEVICE; AFTER; AUTHENTICITY; **WIRELESS** ; DEVICE

Derwent Class: T01; W01; W02

International Patent Class (Main): G06F-015/16; H04Q-007/20

International Patent Class (Additional): G06F-017/60

File Segment: EPI

11/5/27 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015178349 **Image available**

WPI Acc No: 2003-238879/200323

XRPX Acc No: N03-190384

Communication session **hand-off in** mobile wireless **communication system, involves combining communication** session **of** mobile **unit on one call path with that of serving** base station **and target** base station **on another call path**

Patent Assignee: FOSTER E W (FOST-I); TOMASKO-DEAN K S (TOMA-I)

Inventor: FOSTER E W; TOMASKO-DEAN K S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030003916	A1	20030102	US 2001895591	A	20010628	200323	B

Priority Applications (No Type Date): US 2001895591 A 20010628

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030003916	A1		13	H04Q-007/20	

Abstract (Basic): US 20030003916 A1

NOVELTY - A call path from the serving **base station** (120A) to the target **base station** (120B) is established via a **switch** (110) to combine with a communication **session** of a **mobile** unit (140A) on another call path to form a multiway communication **session** . The **mobile** unit communicates with the target **base station** through a first leg of the multiway communication **session** , while the serving **base station** is released from a second leg.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) communication **session** hand-off system; and

(2) communication **session** hand-off apparatus.

USE - Communication **session** hand-off in **mobile wireless** communication system using ISDN communication channel.

ADVANTAGE - Provides virtually seamless and imperceptible hand-off of communication **sessions** of **mobile** units and ensures efficient and cost effective implementation in existing communication equipment such as **switches** and **base stations** . Eliminates or minimizes the use of additional network resources such as ECPs and CDNs, while being compatible with other intelligent network devices and systems.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of a **mobile wireless** communication system in which communication **session** hand-off is implemented.

switch (110)

serving **base station** (120A)

target **base station** (120B)

mobile unit (140A)

pp; 13 DwgNo 3/5

Title Terms: COMMUNICATE; **SESSION** ; HAND; **MOBILE** ; **WIRELESS** ;

COMMUNICATE; SYSTEM; COMBINATION; COMMUNICATE; **SESSION** ; **MOBILE** ; UNIT; ONE; CALL; PATH; SERVE; BASE; STATION; TARGET; BASE; STATION; CALL; PATH
Derwent Class: W01; W02
International Patent Class (Main): H04Q-007/20
File Segment: EPI

11/5/28 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015139332 **Image available**
WPI Acc No: 2003-199859/200319
XRPX Acc No: N03-159063
Authentication, authorization and accounting transactions effecting method in wireless **LANs, involves performing AAA transactions using only IP layer functions, between** mobile **terminal**, access point **and service provider**
Patent Assignee: LI (LIII-I); TU N (TUNN-I); WEINSTEIN S (WEIN-I); ZHANG J (ZHAN-I)
Inventor: LI J; TU N; WEINSTEIN S; ZHANG J
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020174335	A1	20021121	US 2001279724	P	20010330	200319 B
			US 2001989157	A	20011121	

Priority Applications (No Type Date): US 2001279724 P 20010330; US 2001989157 A 20011121
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020174335	A1		17	G06F-015/16	Provisional application US 2001279724

Abstract (Basic): US 20020174335 A1

NOVELTY - The method involves establishing authentication channel between **wireless** LAN **access point** (AP) (120) which is in association with **mobile** terminal (110), and **internet** service **provider** (150). Authentication, authorization and accounting (AAA) messages are communicated between the MT and AP over an air interface, and between AP and **ISP** , for effecting AAA transactions, such that the AAA transactions is performed using only IP layer functions.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an **access point** for **wireless** network.

USE - For effecting authentication, authorization and accounting (AAA) transactions in **wireless** LANs installed in corporate environments, public hot spots such as airports, hotels and Internet cafes, etc.

ADVANTAGE - By using IPSEC for per-packet encryption of messages from **mobile** terminal, widely available strong security strong security solution for problems in wired equivalence privacy (WEP) algorithm and the lack of multiple **session** key support in most AP products, is provided. A packet filtering function employed at an AP, similar to firewall function, serves as a transparent mechanism for controlling not only authentication and authorization, but also packet level accounting. Avoid potential accounting disputes without requiring all **mobile** traffic to go through a central entity, using a mutual proof mechanism, resulting in more efficient and more scalable solution.

DESCRIPTION OF DRAWING(S) - The figure shows in a highly simplified schematic form, the interaction between the various entities participating in the network system.

Mobile terminal (110)
Wireless LAN **access point** (120)
Internet interface (130)
Network (140)
Internet service **provider** (150)
pp; 17 DwgNo 1/5
Title Terms: AUTHENTICITY; AUTHORISE; ACCOUNT; TRANSACTION; EFFECT; METHOD;

WIRELESS ; PERFORMANCE; TRANSACTION; IP; LAYER; FUNCTION; **MOBILE** ; TERMINAL; ACCESS; POINT; SERVICE
Derwent Class: T01; W01
International Patent Class (Main): G06F-015/16
International Patent Class (Additional): H04L-009/00
File Segment: EPI

11/5/29 (Item 16 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015138725 **Image available**
WPI Acc No: 2003-199251/200319
XRPX Acc No: N03-158469
Virtual soft hand-off provision method in wireless **IP-centric CDMA network, involves establishing multicast communication** session **between** mobile **station and subset of** base stations **/new** base station , **using IP address**
Patent Assignee: BABA S (BABA-I); FAMOLARI D (FAMO-I); MAEDA T (MAED-I); VAKIL F (VAKI-I)
Inventor: BABA S; FAMOLARI D; MAEDA T; VAKIL F
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020167921	A1	20021114	US 2001278014	P	20010322	200319 B
			US 2002103919	A	20020322	

Priority Applications (No Type Date): US 2001278014 P 20010322; US 2002103919 A 20020322
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020167921	A1		9	H04L-012/66	Provisional application US 2001278014

Abstract (Basic): US 20020167921 A1
NOVELTY - A multicast communication **session** is established between a **mobile** station (201) and subset of **base stations** /new **base station** (204a-204c and 202) using IP address. The **mobile** station mixes the signals received from the multicast communication **session** , at higher layer in the protocol stack.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:
(1) **Mobile** user terminal;
(2) **Wireless** IP-centric CDMA network;
(3) Network element; and
(4) **Wireless** receiver.
USE - For providing virtual soft hand-off between network elements (claimed) such as **router** , host and **mobile** station, in **wireless** IP-centric **wireless** CDMA network (claimed).
ADVANTAGE - The small group multicast capability enables efficient distribution of packet flows to multiple **base stations** , without loss of content synchronization. Since the multiple packet flows are recovered and combined at higher layer, inaccuracy of signal combination resulting in erroneous synthesis of packets, is eliminated.
DESCRIPTION OF DRAWING(S) - The figure shows an explanatory view of the operation of soft hand-off.
Mobile station (201)
Base stations (202,204a-204c)
pp; 9 DwgNo 2/3
Title Terms: VIRTUAL; SOFT; HAND; PROVISION; METHOD; **WIRELESS** ; IP; CENTRE ; CDMA; NETWORK; ESTABLISH; COMMUNICATE; **SESSION** ; **MOBILE** ; STATION; SUBSET; BASE; STATION; NEW; BASE; STATION; IP; ADDRESS
Derwent Class: W01; W02
International Patent Class (Main): H04L-012/66
File Segment: EPI

11/5/30 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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014821650 **Image available**
WPI Acc No: 2002-642356/200269
XRPX Acc No: N02-507720
Wired network for providing secure access to wireless **network clients, has authenticating** server **which provides cryptographic key valid for connection** session **, to client upon client authentication**
Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE); BRANIGAN S (BRAN-I); CHESWICK W R (CHES-I)
Inventor: BRANIGAN S; CHESWICK W R
Number of Countries: 002 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20020090089	A1	20020711	US 2001755470	A	20010105	200269	B
JP 2002281045	A	20020927	JP 2002602	A	20020107	200279	

Priority Applications (No Type Date): US 2001755470 A 20010105
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020090089	A1		9	H04L-009/00	
JP 2002281045	A		10	H04L-012/28	

Abstract (Basic): US 20020090089 A1
NOVELTY - An authentication **server** provides a client with a wired network address, valid for connection **session** established upon client authentication. The **server** encrypts communication over a **wireless** network **access point** and provides a cryptographic key valid for the connection **session** to the client upon client authentication.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for secure communication method between **wireless** network clients and wired network.
USE - For providing secure, authenticated to **wireless** network clients.
ADVANTAGE - A **wireless** network client cannot gain access to wired network resources without authentication. An eavesdropper cannot gain access to network information because all traffic over the **wireless** network which contain information wired network is encrypted.
DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of the process of network authentication.
pp; 9 DwgNo 3/3
Title Terms: WIRE; NETWORK; SECURE; ACCESS; **WIRELESS** ; NETWORK; CLIENT; AUTHENTICITY; SERVE; CRYPTOGRAPHIC; KEY; VALID; CONNECT; **SESSION** ; CLIENT; CLIENT; AUTHENTICITY
Derwent Class: T01; W01
International Patent Class (Main): H04L-009/00; H04L-012/28
International Patent Class (Additional): H04L-012/66; H04Q-007/38
File Segment: EPI

11/5/31 (Item 18 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014687758 **Image available**
WPI Acc No: 2002-508462/200254
XRPX Acc No: N02-402410
Mobility management in mobile **communications network using proxy** switch **that allows for more flexible and easily extendible services to be provided**
Patent Assignee: WINPHORIA NETWORKS INC (WINP-N)
Inventor: ARAVAMUDAN M; NAQVI S A; SUNDAR R; VISHWANATHAN K K; NAQUVI S A; NAQVI S; VISHWANATHAN K
Number of Countries: 097 Number of Patents: 013
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200243410	A2	20020530	WO 2001US43399	A	20011121	200254	B
AU 200216678	A	20020603	AU 200216678	A	20011121	200263	

EP 1338153	A2	20030827	EP 2001997955	A	20011121	200357	
			WO 2001US43399	A	20011121		
GB 2386303	A	20030910	WO 2001US43399	A	20011121	200360	
			GB 200311610	A	20030520		
FI 200300756	A	20030708	WO 2001US43399	A	20011121	200364	
			FI 2003756	A	20030521		
DE 10196943	T	20031016	DE 10196943	A	20011121	200369	
			WO 2001US43399	A	20011121		
KR 2003070897	A	20030902	KR 2003706928	A	20030522	200404	
SE 200301483	A	20030627	WO 2001US43399	A	20011121	200422	
			SE 20031483	A	20030522		
CN 1484927	A	20040324	CN 2001821668	A	20011121	200437	
GB 2386303	B	20040728	WO 2001US43399	A	20011121	200450	
			GB 200311610	A	20011121		
JP 2004523148	W	20040729	WO 2001US43399	A	20011121	200452	
			JP 2002545002	A	20011121		
BR 200115567	A	20040810	BR 200115567	A	20011121	200455	
			WO 2001US43399	A	20011121		
US 6801771	B1	20041005	US 2000721327	A	20001122	200465	

Priority Applications (No Type Date): US 2000721327 A 20001122

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200243410	A2	E	46	H04Q-007/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

AU 200216678	A		H04Q-007/00	Based on patent WO 200243410
EP 1338153	A2	E	H04Q-007/00	Based on patent WO 200243410

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

GB 2386303	A		H04Q-007/38	Based on patent WO 200243410
FI 200300756	A		H04Q-000/00	
DE 10196943	T		H04Q-007/00	Based on patent WO 200243410
KR 2003070897	A		H04Q-007/22	
SE 200301483	A		H04Q-007/00	
CN 1484927	A		H04Q-007/38	
GB 2386303	B		H04Q-007/38	Based on patent WO 200243410
JP 2004523148	W	78	H04Q-007/22	Based on patent WO 200243410
BR 200115567	A		H04Q-007/00	Based on patent WO 200243410
US 6801771	B1		H04Q-007/20	

Abstract (Basic): WO 200243410 A2

NOVELTY - The proxy **switch** deployed between a **base station** subsystem and a **mobile** station center includes signaling message handling logic to receive signaling messages from the MSC and BS in accordance with a **mobile** signaling protocol. The **switch** maintains state information of call **sessions** and **mobile** stations (MSs) used within the network, and detects whether the signaling message is a handoff message from a MS. Handoff messages are not forwarded to the MSC if the MS is involved in the call.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following;

(1) a proxy **switch** ,

(2) for a communication method, and

(3) for a communication logic.

USE - To handle mobility management within **mobile** communications network.

ADVANTAGE - Allows for more flexible and easily extendible services to be provided.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow diagram of the method.

pp; 46 DwgNo 5/14

Title Terms: **MOBILE** ; MANAGEMENT; **MOBILE** ; COMMUNICATE; NETWORK; **SWITCH** ; ALLOW; MORE; FLEXIBLE; EASY; EXTEND; SERVICE

Derwent Class: W01; W02
International Patent Class (Main): H04Q-000/00; H04Q-007/00; H04Q-007/20; H04Q-007/22; H04Q-007/38
International Patent Class (Additional): H04Q-007/28
File Segment: EPI

11/5/32 (Item 19 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014650962 **Image available**
WPI Acc No: 2002-471666/200250
Related WPI Acc No: 2002-361770; 2003-128087
XRPX Acc No: N02-372310

Enabling centralized control of WLAN, has mobile **devices that are allowed to transfer** wireless **connections between WLAN subnets or channels having different** access points

Patent Assignee: BLUESOCKET INC (BLUE-N)
Inventor: CROSBIE B D; CHRISTOFFEL T W; CRAWSHAW G; CROSBIE D B; JUITT D N
Number of Countries: 024 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200241587	A2	20020523	WO 2001US51306	A	20011022	200250	B
US 20020085719	A1	20020704	US 2000220385	P	20000724	200250	
			US 2000241975	P	20001023		
			US 2001911092	A	20010723		
			US 200135569	A	20011022		
AU 200239788	A	20020527	AU 200239788	A	20011022	200261	
EP 1330894	A2	20030730	EP 2001987586	A	20011022	200350	
			WO 2001US51306	A	20011022		
JP 2004514383	W	20040513	WO 2001US51306	A	20011022	200435	
			JP 2002543871	A	20011022		
JP 2004528761	W	20040916	JP 2002575805	A	20020321	200461	
			WO 2002US8986	A	20020321		

Priority Applications (No Type Date): US 2001911092 A 20010723; US 2000241975 P 20001023; US 2000220385 P 20000724; US 200135569 A 20011022; US 2001278450 P 20010326; US 2001300531 P 20010625; US 200255028 A 20020123
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200241587	A2	E	50	H04L-012/28	
Designated States (National): AU CA JP					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR					
US 20020085719	A1			H04M-001/66	Provisional application US 2000220385
					Provisional application US 2000241975
					CIP of application US 2001911092
AU 200239788	A			H04L-012/28	Based on patent WO 200241587
EP 1330894	A2	E		H04L-012/28	Based on patent WO 200241587
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					
JP 2004514383	W		87	H04L-012/28	Based on patent WO 200241587
JP 2004528761	W		108	H04L-012/28	Based on patent WO 200277820

Abstract (Basic): WO 200241587 A2

NOVELTY - The **wireless** local area network (WLAN) has **mobile** devices that are allowed to transfer **wireless** connections between WLAN subnets or channels having different **access points** . The **access points** connect to a central controller or roaming **server** that supports seamless hand-offs of **mobile** devices from one **access point** to another **access point** . The roaming **server** supports the reassignments of **session** data parameters from one **access point** to another (e.g., **access point** address spoofing) so that the **mobile** device can use the same parameters for communicating to a new **access point** . The roaming **server** also supports the seamless handoff of a

mobile device from one **access point** to another by using a master-slave **switch** technique across two piconets.

DETAILED DESCRIPTION - The roaming **server** also facilitates the control of **access points** by establishing a host controller interface and **wireless** protocol stack in the roaming **server** then encapsulates host controller commands in a packet based network protocol used for communication between the roaming **server** and the **access points** . An INDEPENDENT CLAIM is included for a system, and a method in a roaming **server**

USE - For **wireless** LAN

ADVANTAGE - Achieves seamless handoff without requiring client software

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of a **wireless** local area network including a roaming **server** , **access points** , and **mobile** device according to the invention.

pp; 50 DwgNo 1/9

Title Terms: ENABLE; CENTRE; CONTROL; **MOBILE** ; DEVICE; ALLOW; TRANSFER; **WIRELESS** ; CONNECT; CHANNEL; ACCESS; POINT

Derwent Class: T01; W01

International Patent Class (Main): H04L-012/28; H04M-001/66

International Patent Class (Additional): H04L-012/46; H04L-012/56; H04Q-007/22; H04Q-007/38

File Segment: EPI

11/5/36 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014395808 **Image available**

WPI Acc No: 2002-216511/ **200227**

XRPX Acc No: N02-165983

Hand-over method for packet switched wireless **communication network e.g. Voice over IP, using serving** base station **to maintain or terminate connection**

Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF)

Inventor: AHLSTRAND S; TEDENVALL L

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200174095	A2	20011004	WO 2001SE639	A	20010323	200227	B
AU 200139660	A	20011008	AU 200139660	A	20010323	200227	
EP 1269784	A2	20030102	EP 2001914314	A	20010323	200310	
			WO 2001SE639	A	20010323		

Priority Applications (No Type Date): US 2000718713 A 20001122; US 2000192686 P 20000328

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200174095	A2	E	20	H04Q-007/00	
AU 200139660	A			H04Q-007/00	Based on patent WO 200174095
EP 1269784	A2	E		H04Q-007/38	Based on patent WO 200174095

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200174095 A2

NOVELTY - The resources between the **mobile** station and the target **base station** (56) is allocated and assigned while maintaining connection of the **mobile** station to a network through a serving **base station** (52). Acknowledgement with packet control message is sent over allocated and assigned packet data channel. Connection is terminated from the **mobile** station to the network through the serving

base station and re-established through the target **base station** . The **session** using delay sensitive data.

USE - For packet switched **wireless** communication network.

ADVANTAGE - It provides a hand-over procedure that supports delay sensitive services e.g. voice over IP and because resources are initially allocated and assigned in the target cell, the **mobile** station does not need to use command control channel which is a common resource for all users in a cell.

DESCRIPTION OF DRAWING(S) - The figure shows illustrates a hand-over procedure for packet switched system.

Serving **Base Station** (52)

Target **Base Station** (56)

pp; 20 DwgNo 4/4

Title Terms: HAND; METHOD; PACKET; **SWITCH** ; **WIRELESS** ; COMMUNICATE; NETWORK; VOICE; IP; SERVE; BASE; STATION; MAINTAIN; TERMINATE; CONNECT

Derwent Class: W01; W02

International Patent Class (Main): H04Q-007/00; H04Q-007/38

File Segment: EPI

11/5/39 (Item 26 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014240501 **Image available**

WPI Acc No: 2002-061201/ **200208**

XRPX Acc No: N02-045332

Wireless **communication system e.g.** cellular **and communication system, operates each** base station **in association with** wireless **switching center, to hand off communication with subscriber terminal to other** base station

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE)

Inventor: LANZEROTTI L J; MYER R E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6324398	B1	20011127	US 96606616	A	19960226	200208	B

Priority Applications (No Type Date): US 96606616 A 19960226

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6324398	B1		7	H04Q-007/20	

Abstract (Basic): US 6324398 B1

NOVELTY - The 747-type aircrafts (426i,426r) including propulsion system, support the corresponding **base stations** (414i,414r) each associated with a cell. The propulsion systems maintain the aircrafts above geographic area serviced by **base station** . Each of the **base stations** is operated in association with **wireless** switching center (412), to hand off communication **sessions** with subscriber terminals to other **base station** .

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for **wireless** communication method.

USE - **Wireless** communication system e.g. **cellular** and personal communication system (PCS), etc.

ADVANTAGE - Provides emergency telecommunication within geographic area having no communication capability. Also, provides temporary communications within area where telecommunication capability has been lost by allowing aircraft to fly in circular pattern at any altitude above the geographic area being serviced.

DESCRIPTION OF DRAWING(S) - The figure illustrates schematic diagram of **wireless** communication system.

Wireless switching center (412)

Base stations (414i,414r)

Aircrafts (426i,426r)

pp; 7 DwgNo 4/4

Title Terms: **WIRELESS** ; COMMUNICATE; SYSTEM; **CELLULAR** ; COMMUNICATE; SYSTEM; OPERATE; BASE; STATION; ASSOCIATE; **WIRELESS** ; **SWITCH** ; HAND;

COMMUNICATE; SUBSCRIBER; TERMINAL; BASE; STATION
Derwent Class: W01; W02; W06
International Patent Class (Main): H04Q-007/20
File Segment: EPI

11/5/40 (Item 27 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014234606 **Image available**
WPI Acc No: 2002-055304/ **200207**
XRPX Acc No: N02-040783
Optimizing use of packet resources by determining whether mobile **switching center has received assignment failure indicating packet data** session **going dormant**
Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF); MADOUR L (MADO-I); SHAFIK K (SHAF-I)
Inventor: MADOUR L; SHAFIK K
Number of Countries: 096 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200180591	A2	20011025	WO 2001SE772	A	20010406	200207 B
US 20010050907	A1	20011213	US 2000195378	P	20000407	200207
			US 2000746274	A	20001220	
AU 200147011	A	20011030	AU 200147011	A	20010406	200219
EP 1269775	A2	20030102	EP 2001920066	A	20010406	200310
			WO 2001SE772	A	20010406	
CN 1422500	A	20030604	CN 2001807576	A	20010406	200356

Priority Applications (No Type Date): US 2000746274 A 20001220; US 2000195378 P 20000407
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200180591	A2	E	32	H04Q-007/38	
	Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW				
	Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW				
US 20010050907	A1			H04L-001/00	Provisional application US 2000195378
AU 200147011	A			H04Q-007/38	Based on patent WO 200180591
EP 1269775	A2	E		H04Q-007/22	Based on patent WO 200180591
	Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR				
CN 1422500	A			H04Q-007/22	

Abstract (Basic): WO 200180591 A2

NOVELTY - Method consists in sending a message from the **base station** controller (BSC) to the **mobile** switching center (MSC) indicating that the **mobile** station (MS) has powered down, determining in the MSC that the packet-data **session** is dormant, sending an instruction from the MSC to the BSC in a class-0 connectionless transaction to release network resources, sending an instruction from the BSC to the packet control function (PCF) to tear down the associated resources and releasing the packet-data connection by the packet data service node (PDSN).

DETAILED DESCRIPTION - There are INDEPENDENT CLAIMS for (1) a **mobile** switching center, (2) a **base station** controller, (3) a packet resources optimizer.

USE - Method is for a **wireless** access network with a **mobile** switching center, **base station** controller, packet control function and packet data service node.

ADVANTAGE - Method eliminates a hanging packet-data connection when the **mobile** station performs a power-down while the packet-data **session** is in a dormant state.

DESCRIPTION OF DRAWING(S) - The figure shows a **wireless** access network
pp; 32 DwgNo 1/9
Title Terms: OPTIMUM; PACKET; RESOURCE; DETERMINE; **MOBILE** ; **SWITCH** ; RECEIVE; ASSIGN; FAIL; INDICATE; PACKET; DATA; **SESSION** ; DORMANT
Derwent Class: W01; W02
International Patent Class (Main): H04L-001/00; H04Q-007/22; H04Q-007/38
International Patent Class (Additional): H04L-012/56
File Segment: EPI

11/5/45 (Item 32 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014087238 **Image available**
WPI Acc No: 2001-571452/ **200165**
XRPX Acc No: N01-425825
Operating method for mobile **radio network, involves stopping packet forwarding to primary** base station **, based on the** identifier **, when the** connection **between** mobile **and secondary** base stations **is switched**
Patent Assignee: BOSCH GMBH ROBERT (BOSC); BECKMANN M (BECK-I); HANS M (HANS-I)
Inventor: BECKMANN M; HANS M
Number of Countries: 022 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 10001608	A1	20010719	DE 1001608	A	20000117	200165	B
WO 200158196	A1	20010809	WO 2000DE4652	A	20001223	200165	
EP 1252787	A1	20021030	EP 2000991121	A	20001223	200279	
			WO 2000DE4652	A	20001223		
US 20030119488	A1	20030626	WO 2000DE4652	A	20001223	200343	
			US 2002181464	A	20021018		
JP 2003522493	W	20030722	WO 2000DE4652	A	20001223	200350	
			JP 2001557320	A	20001223		

Priority Applications (No Type Date): DE 1001608 A 20000117
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 10001608	A1		14	H04B-007/005	
WO 200158196	A1	G		H04Q-007/38	
Designated States (National): JP US					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR					
EP 1252787	A1	G		H04Q-007/38	Based on patent WO 200158196
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					
US 20030119488	A1			H04M-011/10	
JP 2003522493	W		34	H04Q-007/22	Based on patent WO 200158196

Abstract (Basic): DE 10001608 A1
NOVELTY - Packet data is transferred between **mobile** station and **base station** in the primary network. Current condition of data transmission in the primary network is monitored and accordingly specific information with network identifier is produced. When the connection between **mobile** and **base stations** in the secondary network is switched, packet forwarding to primary **base station** is stopped based on the identifier.
USE - For **mobile** radio network e.g. **cellular mobile** telecommunication network.
ADVANTAGE - Ensures reliable reception of packets even during connection switching of network and resetting of **mobile** station, by stopping the packet transmission to **base station** in previous network.
DESCRIPTION OF DRAWING(S) - The figure shows the network protocol units in the radio network.
pp; 14 DwgNo 5/5

Title Terms: OPERATE; METHOD; **MOBILE** ; RADIO; NETWORK; STOP; PACKET; FORWARDING; PRIMARY; BASE; STATION; BASED; IDENTIFY; CONNECT; **MOBILE** ; SECONDARY; BASE; STATION; **SWITCH**
Derwent Class: W01; W02
International Patent Class (Main): H04B-007/005; H04M-011/10; H04Q-007/22; H04Q-007/38
International Patent Class (Additional): H04B-007/26; H04L-012/56; H04Q-007/20; H04Q-007/28
File Segment: EPI

11/5/47 (Item 34 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014057168 **Image available**
WPI Acc No: 2001-541381/ **200160**
XRPX Acc No: N01-402385

Behavior customizing system e.g. for WAP, has several terminals for transmitting, processing and receiving information where terminals are configured to transmit transmission signal including identifier for identifying each terminal

Patent Assignee: NOKIA CORP (OYNO)
Inventor: PAKKALA T
Number of Countries: 094 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200150701	A2	20010712	WO 2000FI1162	A	20001228	200160	B
AU 200125208	A	20010716	AU 200125208	A	20001228	200169	
EP 1249110	A2	20021016	EP 2000988851	A	20001228	200276	
			WO 2000FI1162	A	20001228		
CN 1437819	A	20030820	CN 2000819219	A	20001228	200374	

Priority Applications (No Type Date): US 99474819 A 19991229
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200150701	A2	E	39	H04L-029/00	
	Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW				
	Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW				
AU 200125208	A			H04L-029/00	Based on patent WO 200150701
EP 1249110	A2	E		H04L-012/66	Based on patent WO 200150701
	Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR				
CN 1437819	A			H04L-012/66	

Abstract (Basic): WO 200150701 A2

NOVELTY - The system has several terminals for transmitting, processing and receiving information where the terminals are configured to transmit a transmission signal including an identifier (ID) for identifying each terminal. The system also has a network having several **access points** operable to communicate with the network, and a Service Enabling **server** connected to the network. Each terminal is configured to independently access the Service Enabling **server** and upon accessing the Service Enabling **server** , a necessary service requested by the user of the terminal requesting the service is selected. Information related to the service is then placed in an understandable form for the terminal and the user.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of communicating services and customizing behaviors and interfaces, a method of **wireless** mark up language emulation, a method of buffering information in a communication system, a method of performing **session** management, and a method of creating a selection list in a communication system

USE - For service provision in electronic networks. For customizing

behaviors and interfaces in service invocations via electronic networks. For WAP

ADVANTAGE - Personalizes and customizes and interfaces in service invocation and provision via electronic networks

DESCRIPTION OF DRAWING(S) - The figure shows an internet network and a **wireless** network in which customization of user behaviors and interfaces is implemented in accordance with the invention.

pp; 39 DwgNo 1/10

Title Terms: BEHAVE; CUSTOMISATION; SYSTEM; TERMINAL; TRANSMIT; PROCESS; RECEIVE; INFORMATION; TERMINAL; CONFIGURATION; TRANSMIT; TRANSMISSION; SIGNAL; IDENTIFY; IDENTIFY; TERMINAL

Derwent Class: W01

International Patent Class (Main): H04L-012/66; H04L-029/00

International Patent Class (Additional): G06F-017/30; H04L-029/06

File Segment: EPI

11/5/55 (Item 42 from file: 350)

DIALOG(R)File 350:Derwent WPIX

013497557 **Image available**

WPI Acc No: 2000-669498/ **200065**

XRPX Acc No: N00-496525

Right control system of multi pair communication devices, has mobile **unit with intrinsic** connection number **in ascending order indicating right of communication to** base station **after power-supply switching ON**

Patent Assignee: TOTO LTD (TTOC)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2000278293	A	20001006	JP 9986196	A	19990329	200065	B

Priority Applications (No Type Date): JP 9986196 A 19990329

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2000278293	A		3	H04L-012/40	

Abstract (Basic): JP 2000278293 A

NOVELTY - Each **mobile** unit has an intrinsic **connection number** arranged in ascending order indicating the right of communication. The **mobile** unit with largest connection has right of communication to a **base station** after the switching ON of the power supply of the **base station** .

USE - For pair of communication devices e.g. **base station** and **mobile** unit.

ADVANTAGE - Ensures smooth utilization of communication devices by shortening communication space.

DESCRIPTION OF DRAWING(S) - The figure shows the multi pair communication system with bus type communication circuit.

pp; 3 DwgNo 1/3

Title Terms: RIGHT; CONTROL; SYSTEM; MULTI; PAIR; COMMUNICATE; DEVICE; **MOBILE** ; UNIT; INTRINSIC; CONNECT; NUMBER; ASCEND; ORDER; INDICATE; RIGHT ; COMMUNICATE; BASE; STATION; AFTER; POWER; SUPPLY; **SWITCH**

Derwent Class: W01

International Patent Class (Main): H04L-012/40

File Segment: EPI

11/5/57 (Item 44 from file: 350)

DIALOG(R)File 350:Derwent WPIX

012943670 **Image available**

WPI Acc No: 2000-115523/ **200010**

XRPX Acc No: N00-087395

Roaming capability providing method for mobile **computers**

Patent Assignee: PROXIM INC (PROX-N)
Inventor: COLEMAN A B; GRAU J; TRUONG L T
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6006090	A	19991221	US 9353191	A	19930428	200010	B

Priority Applications (No Type Date): US 9353191 A 19930428
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6006090	A		6	H04Q-007/00	

Abstract (Basic): US 6006090 A

NOVELTY - **Access points** (AP1,AP2) provide **wireless** access of **mobile** computing devices to a wired network. The **access points** have different network ID's. The **mobile** computing devices are programmed such that they appear in a network as virtual **routers** capable of changing their **access points** during a **session** . The virtual routes connect one subnet having fixed network ID to another subnet having variable network ID.

DETAILED DESCRIPTION - The subnet connected to the **mobile** device has a fixed network ID. The subnet connected to the **access point** has variable network ID. A network operating system provides fault tolerant internet routing of network communication between nodes and requires that the network ID of a node remain constant for duration of the **session** .

USE - For providing roaming capability to **mobile** computers in standard networks such as Novell network.

ADVANTAGE - The **mobile** computers can freely roam throughout the entire internet without interruption of communication and without the necessity of user intervention.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of a **mobile** computing network.

Access points (AP1,AP2)

```
File 275:Gale Group Computer DB(TM) 1983-2004/Nov 04
         (c) 2004 The Gale Group
File 621:Gale Group New Prod.Annou.(R) 1985-2004/Nov 04
         (c) 2004 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2004/Nov 04
         (c) 2004 The Gale Group
File  16:Gale Group PROMT(R) 1990-2004/Nov 04
         (c) 2004 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 148:Gale Group Trade & Industry DB 1976-2004/Nov 04
         (c)2004 The Gale Group
File 624:McGraw-Hill Publications 1985-2004/Nov 02
         (c) 2004 McGraw-Hill Co. Inc
File  15:ABI/Inform(R) 1971-2004/Nov 03
         (c) 2004 ProQuest Info&Learning
File 647:CMP  Computer Fulltext 1988-2004/Oct W4
         (c) 2004 CMP Media, LLC
File 674:Computer News Fulltext 1989-2004/Sep W1
         (c) 2004 IDG Communications
File 696:DIALOG Telecom. Newsletters 1995-2004/Nov 03
         (c) 2004 The Dialog Corp.
File 369:New Scientist 1994-2004/Oct W4
         (c) 2004 Reed Business Information Ltd.
File 810:Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File 610:Business Wire 1999-2004/Nov 01
         (c) 2004 Business Wire.
File 613:PR Newswire 1999-2004/Nov 03
         (c) 2004 PR Newswire Association Inc

Set     Items   Description
S1    2953786   MOBILE OR PORTABLE OR WIRELESS? OR CELLULAR
S2     157085   BASESTATION? ? OR BASE()STATION? ? OR ACCESS()POINT? ? OR -
              POINT(1W)ACCESS
S3    3353268   NAS OR SERVER? ? OR RADIUS OR ISP OR ISPS OR (INTERNET OR -
              NETWORK OR COMMUNICATION? ? OR TELECOMMUNICATION? ?)(2W)PROVI-
              DER? ? OR SWITCH OR SWITCHES OR ROUTER? ?
S4     123549   (SESSION? ? OR TRANSACTION? ? OR CONNECT???? OR TUNNEL????-
              )(3N)(ID OR IDS OR IDENTIFIER? ? OR IDENTIFICATION OR NUMBER?
              ? OR NUMERAL? ? OR CODE? ? OR NAME? ? OR LABEL? ? OR DESIGNAT-
              ION? ? OR DESCRIPTOR? ?)
S5        183   S1(50N)S2(50N)S3(50N)S4
S6         96   RD (unique items)
S7         48   S6 NOT PY=2002:2004
S8      17628   SESSION? ?(5N)(ID OR IDS OR IDENTIFIER? ? OR IDENTIFICATION
              OR NUMBER? ? OR NUMERAL? ? OR CODE? ? OR NAME? ? OR LABEL? ?
              OR DESIGNATION? ? OR DESCRIPTOR? ?)
S9         23   S1(50N)S2(50N)S8
S10        13   RD (unique items)
S11        14   S2(50N)S8(50N)S3
S12         8   RD (unique items)
S13       410   S1(20N)S2(20N)S3(20N)SESSION? ?
S14       204   RD (unique items)
S15        67   S14 NOT PY=2002:2004
S16        67   S15 NOT (S7 OR S12)
```

16/9/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)

02571674 SUPPLIER NUMBER: 81829794 (THIS IS THE FULL TEXT)
How Secure is Your Wi-Fi? (Roam).
Scannell, Tim
Communications International, 68(2)
Nov, 2001
ISSN: 0305-2109 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 1451 LINE COUNT: 00122

TEXT:

The recent terrorist attacks in the US have increased calls for stronger safeguards on wireless networks, (Roam)

WALK PAST the shops that crowd the popular Fisherman's Wharf in San Francisco and you may see more people looking at notebook and handheld computers than the eclectic and funky sights. The reason is that San Francisco is one of a handful of cities across the US that is rapidly becoming a wireless Mecca for cyber-nomads.

Local computer groups whose members come from businesses and nearby college campuses are setting up free wi-fi wireless network access points on houses, rooftops and the sides of buildings throughout the city in an effort to spread the wireless connectivity bubble to everyone in San Francisco. Other cities are quickly following suit, using low-cost and completely self contained transmission and receiving units that wirelessly connect notebook and handheld users to the web.

However, while this Wifi Freedom movement smacks of the US spirit of independence, businesses and local governments are concerned that unlimited and widespread wireless access is not necessarily a good thing if there are no strong security safeguards in place to protect sensitive data and electronic mail. Security has quickly become the number one concern among enterprise managers when it comes to both wired and wireless systems, especially as elements such as the wireless free access movement and the availability of wireless hotspots.

Security of both data and applications has always been among the top five worries of IT managers and corporations, although it has recently jumped to become the primary concern when evaluating wireless networks. This paranoia has been reinforced by the recent catastrophic events surrounding the terrorist attacks in the US. Businesses in the US are aware that cyber attacks could be staged on the nation's wireless and wired networks, effectively bringing the nation to a standstill once again. Most of these businesses realise that wireless systems, including wlans, are inherently non-secure. As a result, many companies may be reluctant to offer full access to enterprise knowledge resources from these wireless doorways. Or, they may implement security structures that are so tight and restrictive they negate the productivity aspects of wireless systems in general.

A study released earlier this year by the investment firm Goldman Sachs, involving 175 notebook computer users, claimed that most IT managers regard mobile and handheld computing devices as expendable luxuries rather than indispensable business tools. The reason is that these systems, even when connected in an always-on wireless network, are used primarily to shuttle non-mission critical information between a server and remote client system.

Despite any reluctance to wireless-enable mission critical data, wireless lans are presently a very hot item in corporate America. Even as the economy continues to stumble, wireless Ian growth is averaging at 29 per cent.

Overall, worldwide internet security software revenue jumped 33 per cent to $5 billion in 2000. By 2005, this market will amass more than $14 billion in revenue, say DC researchers. Pushing this growth is an increased effort to develop collaborative mobile applications that allow users to continue working together and sharing information among team members, even if they are geographically scattered across the globe. Revenues in integrated collaborative environments, messaging applications, and other collaborative applications will exceed $4 billion this year, says DC. Included in this figure are revenues from software and hosted collaborative

application licences. Not exactly small potatoes in this revenue-starved environment.

PLUGGING THE HOLES

There are a number of ways to plug holes in wireless networks, working from either the server or client side. Netseal Technologies in Finland takes the client-side approach with its Roammate product, which. supports network address translation and automatically establishes private ip addresses. This essentially creates an ip security protocol (ipsec)-compliant virtual private network that employs strong encryption algorithms and individual keys that can be changed by the user. Since the technology supports ip roaming, connections are virtually uninterrupted.

The problem with this type of product, however, is that many nat-based security technologies are not compatible with corporate vpns, and therefore restrict access to pipelines leading into an enterprise information resource. And leaving key-generation up to the user, especially if it is only based on the client side, is asking for trouble since these keys may not be changed on a regular basis.

US-based Ecutel is another security-minded **wireless** networking company that takes the ip approach to protecting **server** and client resources. The company also allows seamless **wireless** roaming between **access points** by combining mobility and security to enable roaming from lans to **wireless** lans and between **wireless** lan subnets. Application **sessions** and security tunnels are maintained while the user moves from one subnet to another.

Ecutel claims to be one of the first **wireless** companies to maintain security across the corporate firewall, and allow roaming across different communications standards.

While the ability to hop effortlessly and securely from one network hub to another is important, however, there are an increasing number of companies that believe strong security technologies should be bolstered by additional layers of security blankets. These layers provide more secure doorways through which a user must pass before gaining entrance to a company's critical information resources.

Reefedge, a relative newcomer to the field, takes this approach with its Reefedge Connect product that tackles the security issue from three different levels -- authentication, access control and privacy protection. Like most systems, the Reefedge technology initially requires a user on a wireless network to provide authentication, usually in the form of an id and password. These identifiers are checked against a company's ldap files, and allow administrators to implement various levels of access, ranging from a basic guest pass to high-level executives.

The system, which works with both ipsec and Cisco vpn security protocols, then provides additional layers of encryption of both the id and password information, and even the data being swapped between server and client systems. It does this while a user is roaming throughout a building or campus, handing off authenticated users from one wireless access point to another. Reefedge Connect is designed to integrate smoothly into most existing enterprise systems.

One important aspect of the Reefedge security technology, From an administrator's point of view, is that it constantly monitors the ebb and flow of wireless network traffic. "It is not constantly probing, but sensing how ip traffic is flowing," says Sandeep Singhal, co-founder of Reefedge. "It will then hand off when it senses there is more traffic coming from a new point." The system also adds an intuitive edge by capturing a lot of information about where the user is and the types of devices being used by mobile staff. Network administrators can then use that information for traffic monitoring, logging, intrusion detection, and so on.

The Reefedge technology can also be used for specific applications and to define a set of application interfaces that allow servers to extract information about users, and about each client system and its location. For example, people in a hospital can use web-based applications on the fly to access legacy patient data. The Reefedge networking technology would sense exactly where that person is, identify and authenticate that user, and then open a wireless window into needed patient data and records. The important aspect is that it would target the wireless user with information, Singhal points out.

EMBEDDED SECURITY

Most popular wireless security technologies are either based in software, or consist of independent security engines that operate between a company's firewall and the cold and insecure outside world, Nextcomm takes a different approach, though, by embedding security components directly into the integrated circuitry of a plug-in wi-fl card or on-board transceiver. The small US-based company began developing the technology as a way to combat unauthorized eavesdropping of wireless lan traffic, a significant problem that is expected to increase.

Nextcomm starts by employing a key hopping technology that rapidly and randomly makes changes in key assignments every few seconds. The technology then adds over the air encryption that essentially scrambles the information as it is sent and de-scrambles it as it is received -- again according to that rapidly changing key code

16/9/6 (Item 6 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)

02475687 SUPPLIER NUMBER: 69973543 (THIS IS THE FULL TEXT)

SECURITY STILL UP IN THE AIR -- Enterprise wireless LAN deployments offer greater usability-and vulnerability.(Technology Information)

Zeller, Tom

Network Computing, 101
Feb 5, 2001
ISSN: 1046-4468 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 2158 LINE COUNT: 00172

TEXT:

The idea of a wireless LAN has always had a certain charm-suggesting an end to the expense and inconvenience of running cable, and to users' whining about being tethered to their desks. And now, with wireless standards firming up, throughput increasing and prices dropping, more and more IT managers are succumbing to temptation. In fact, Cahners In-Stat Group predicts that the wireless LAN market will grow 25 percent annually over the next few years, from $771 million last year to nearly $2.2 billion in 2004.

At the enterprise level, however, security is a major stumbling block. While the 802.11b wireless Ethernet standard includes several security measures that can lock down small installations, how well these measures scale to environments with tens of access points and hundreds of users is still unclear.

Enterprise-level wireless-LAN security is a two-pronged concern: Network access must be limited to authorized users, and wireless traffic must be shielded from sniffing by would-be packet hijackers.

ACCESS CONTROL

The best way to secure access to a wireless network-and, hence, a corporate network-is to instruct access points to pass only those packets originating from a list of known Ethernet addresses. Of course, MAC (Media Access Control) addresses can be spoofed, but an intruder would have to learn the address of an employee's Ethernet card. Unfortunately, this may not be difficult-unlike internal NICs, many wireless PC Cards have the MAC addresses printed in plain sight, right on the card.

Even assuming physical card security can be ensured, the problem of compiling and distributing a list of valid MAC addresses remains. In addition, each brand of access points has some limit on the number of addresses allowed. Lucent Technologies' Orinoco access point, for example, has a limit of 492 MAC addresses, so scalability is a concern. The good news, though, is that once entered, the list of addresses often can be saved and used to populate other access points.

Another setting on the access point that can be used to restrict access to approved users is the network name, also referred to as the SSID (Service Set ID). This feature was designed to let specific groups use particular access points. An access point can be configured either to allow any client to connect to it or to require that a client request use the access point by name. While not meant primarily as a security feature, setting the access point to require the network name can let the name act as a password.

As with any password scheme, however, the more people who know the password, the higher the probability that an unauthorized user will misuse it. Certainly the network name can be changed periodically, but each user must be notified of the new name and make the few clicks required to reconfigure his or her client-arguably a deal killer as your network grows.

STOPPING THE SNIFFER

The 802.11b standard allows for encrypted communication between clients and access points via WEP (Wired Equivalent Privacy). WEP is an optional RC-4-based, 40-bit encryption mechanism that encrypts the data portion of the packet. Because an initialization string is tacked on, adding in the 24 bits that are used to identify a device to the LAN, WEP is referred to by vendors as 64-bit encryption.

Unfortunately, high-end equipment can break 40-bit encryption in a matter of seconds. In addition, WEP has a loophole wide enough to sail a boatload of pirates through: Under WEP, all users of a given access point

share the same encryption key. To achieve mobility within a campus, all access points must be set to use the same key, and all clients the same encryption key as well.

Given these limitations, some vendors do not implement WEP, though most provide models with and without it. In this case, an access point can be configured to never use WEP or to always require the use of WEP. In the latter case, an encrypted challenge is sent to the client. If the client cannot respond correctly, it will not be allowed to use the access point, making the WEP key, in effect, another password. As with using the network name as a password, you could routinely change the WEP key, but you'd have the same client notification and configuration issues involved with changing the network name.

Of course, an attacker possessing the WEP key could sniff packets off the airwaves and decrypt them. Nonetheless, requiring WEP substantially raises the minimum skill set that is needed to intercept and read wireless data.

BEYOND WEP

So what other options exist for securing your data while in transit?

Most vendors offer 128-bit encryption modes, but these are not standardized and therefore are not guaranteed to interoperate. In addition, only some vendors provide hardware-based encryption. Without hardware-based encryption, the user employing WEP will experience some performance degradation, because the device's CPU must do extensive numeric calculations on each packet sent and received. Modern equipment might see a performance degradation of 15 percent to 20 percent, with 128-bit encryption taking a higher toll; older laptops may suffer intolerable slowdowns. Some cards perform better than others; the National Laboratory for Applied Network Research has done some simple throughput testing, the results of which can be seen at www.scd.ucar.edu/nets/projects/ **wireless** /performance.tests.html.

Several major vendors offer proprietary solutions to the authentication-scalability problem. These solutions resemble prestandard implementations of the pending IEEE 802.1x standard, which will ultimately solve this problem in a vendor-interoperable manner (see "The Future Solution: 802.1x," page 102).

In these schemes, the **wireless** client requests authorization from the **access point** , which then forwards the request to a **RADIUS** (Remote Authentication Dial-In User Service) **server** . Upon authorization, the **RADIUS server** sends a unique encryption key for the current **session** to the **access point** , which transmits it to the client.

However, while such products offer solutions to the authentication and encryption security problems, these solutions work only if you buy all your **access points** and **wireless** cards from the same vendor.

For medium- to large-scale deployments, all of the above security options present difficulties: Too many people know a shared secret in the form of network name or WEP key, or there are too many MAC addresses to use for filtering, or you're tied to a particular vendor for wireless cards.

VPN TO THE RESCUE

While we wait for 802.1x to save the day, two approaches warrant your consideration. Both involve creating special subnets for your wireless traffic. Instead of using normal routers, these subnets have gateways that require authentication before packets can be routed.

Such subnets can be created via VLAN (virtual LAN) technology using switches that support the IEEE 802.1Q standard, in which 4 bytes are added to an Ethernet frame. Under this protocol, an IT manager can combine selected ports from different switches into a single subnet. In a campus environment, this is possible even if the switches are separated geographically as long as VLAN trunking is supported on the intervening switches. Nodes that use VLAN ports cannot access addresses on other subnets without going through a router or gateway, even if those other subnets are located on the same physical switch as the VLAN ports.

Once the VLAN is established, you need to create a gateway that will pass traffic from authorized users only. A VPN server can be used to establish such a gateway, since the function of a VPN server is to require authentication, then provide the client with an IP number and encryption key. Typically, packets using the VPN-provided IP number are encrypted and placed inside another IP packet. Simply grabbing an available IP number from the wireless subnet won't fool a VPN server into passing your traffic,

as the correct encryption key for each session is required. Using a VPN server as the gateway not only requires authentication of the user, but offers a huge side benefit: The wireless stream is encrypted with a key unique to the user, eliminating the need for using the shared key of WEP.

In the absence of a router, all users of the wireless subnet must create connections with the VPN server to reach other subnets, and only authorized users can do so.

There are a number of valid reasons beyond wireless security for establishing a VPN-for example, to provide secure, encrypted access to sensitive data from a remote location via the Internet, or to make remote users appear to be local so they can access services restricted by IP number.

But the VPN approach is hardly a free ride. Ramping up your understanding of VPN technology, choosing a vendor, configuring the server and supporting a VPN client are complex propositions. Troubleshooting VPN problems is no picnic either.

CUSTOM FIREWALL

A different gateway avenue is worthy of mention. Although it requires a bit of custom programming, it also uses the VLAN approach to aggregate wireless traffic to a subnet without a conventional router. In this case, the gateway off the wireless subnet is a dual-homed Unix server running specialized code. IT professionals at the Atlanta-based Georgia Institute of Technology have implemented such a solution both for wireless use and for the walk-up laptop labs on campus. Their solution is elegant and straightforward to implement.

The Georgia Tech design uses the IP Tables firewall functions in the latest Linux kernel to provide the packet-filtering operation. When a client joins the wireless/walk-up network, the firewall/router hands out a DHCP address. To authorize access, the client must open a Web browser. The HTTP or HTTPS (HTTP Secure) request from the client triggers an automatic redirect to an authentication page from the gateway, and the authentication request is passed to a Kerberos server. If authentication is successful, a PERL script adds the IP address to the rules file, making it a "known" address to the IP Tables firewall process

From the user's perspective, the wireless network doesn't seem to work until the user launches a browser and enters a user name and password. No client installation or configuration is required. Of course, this method provides only authentication, not encryption, and will scale to just a few hundred simultaneous users. While other institutions have implemented gateways that filter based on MAC address and that require a one-time registration of a user's address prior to use of the wireless network, the Georgia Tech solution allows on-the-fly use of wireless and provides a more timely association between user and MAC address.

Tom Zeller is the telecommunications technical adviser to Indiana University. Send your comments on this article to him at zeller@indiana.edu.

THE FUTURE SOLUTION: 802.1x

The IEEE 802 LAN/MAN Standards Committee began meeting in 1980, and has produced an abundance of technologies, including 802.3 (Ethernet), 802.4 (Token Ring) and 802.11 (wireless LAN). The 802.1 committee is the working group for higher-layer LAN protocols, including the overall 802 architecture, MAC bridging and network management. The 802.1d standard for MAC bridges (switches) and the 802.1Q standard for VLANs are the best-known standards to emerge from this group-so far, anyway. That may change: The 802.1x committee is working on providing a standards-based solution to access control for the entire range of 802 technologies.

"802.1x is intended as a general-purpose access-control mechanism for LAN ports, not just for 802.11," says Tony Jeffree, chairman of the working group. "The authentication mechanism is based on Extensible Authentication Protocol in RADIUS."

RADIUS (Remote Authentication Dial-In User Service) is an IETF standard method for providing authentication services. Extensible Authentication Protocol (EAP) lets a client negotiate authentication protocols with the authentication server. For example, a client could check to see if the server would use a certain type of smartcard and, if not, might agree to use CHAP (Challenge Handshake Authentication Protocol).

According to Jeffree, the 802.1x standard allows encryption keys for

the connection to be exchanged. However, the 802.11b committee must provide the details of the algorithms that would use the key. The standard could complete its external Sponsor Ballot by March. It would then require final standards board approval and could appear in products in the first half of 2002.

http://www.nwc.com/

16/9/42 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

08973025 Supplier Number: 77941568 (THIS IS THE FULLTEXT)
FUNK TUNES UP STEEL-BELTED RADIUS FOR WIRELESS; AUTHENTICATION SOFTWARE IMPROVES ACCOUNTING. (Funk Software's Steel-Belted RADIUS software)
Greene, Tim
Network World, p26
Sept 3, 2001
ISSN: 0887-7661
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; General Trade
Word Count: 404
TEXT:

CAMBRIDGE, MASS. - Funk Software is making it easier for service providers to keep Mobile IP wireless sessions up and running as users move from cell site to cell site within new wireless networks.

An update to Funk's Steel-Belted **RADIUS** software for service providers manages the transfer of **Mobile** IP data to smoothly hand off **sessions** between **wireless** cells. Such handoffs require **wireless** network **access points** to tap **session** information from a Remote Authentication Dial-In User Service (**RADIUS**) about active devices that are moving out of range of one cell and coming into range of another.

U.S. carriers will need this capability as they build **Mobile** IP networks under the 3rd Generation Partnership Project 2 (3GPP2) for **wireless** networks, says Jeff Phillips, an analyst with TeleChoice. "This will enable providers to bring (authentication, authorization and accounting) to these new wireless networks," he says. Phillips says he is unaware of any other RADIUS vendors selling this feature.

Funk is selling the wireless support as an add-on to the base software package of its new Steel-Belted RADIUS/SPE Version 3.0, which is available now. Steel-Belted RADIUS accepts or rejects users attempting to access dial-up networks, such as an ISP. RADIUS authorizes users based on policies in a central database and keeps account of user activity once users have been admitted to the network.

Also new in Version 3.0 is the ability for Steel-Belted RADIUS to tap non-RADIUS data. Phillips says providers can use this feature to have the software check whether customers have paid their bills, and if not, deny them access. Alternatively, access could be granted, but with a message telling a user that his bill is overdue, Funk says.

In Version 3.0, Funk is adding what it calls spooled accounting, where accounting data from distributed RADIUS servers can be written to a central hard drive so providers can pull together a customer's billing information. If the billing system that needs the data is unavailable for some reason, Steel-Belted RADIUS servers will hold the data until the billing system is up again. Previously, there was no guarantee this data would be delivered to the billing system.

Steel-Belted RADIUS/SPE Version 3.0 costs $20,000 per server for the base package and an additional $20,000 for the wireless package.

PUBLISHER NAME: Network World, Inc.
COMPANY NAMES: *Funk Software Inc.
EVENT NAMES: *330 (Product information)
GEOGRAPHIC NAMES: *1USA (United States)
PRODUCT NAMES: *7372661 (Remote Access Software)
INDUSTRY NAMES: TELC (Telecommunications)
SIC CODES: 7372 (Prepackaged software)
NAICS CODES: 51121 (Software Publishers)
TRADE NAMES: Steel-belted RADIUS (Remote access software)
SPECIAL FEATURES: COMPANY

16/9/48 (Item 8 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

03129787 Supplier Number: 44270368 (THIS IS THE FULLTEXT)
Wide Area Wireless: Roam Wasn't Built in a Day
Network Computing, p120
Dec, 1993
ISSN: 1046-4468
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 2952
TEXT:
by Gary A. Bolles

If you've ever wanted to break from the tyranny of dial-up communications, you've probably considered going wireless. Anyone who has had to struggle with dialing a modem through a hotel phone system knows just how difficult traditional remote communications can be. Wireless networks offer an option for avoiding these problems, but they also have their limitations.

Wide area wireless actually encompasses several technologies. Cellular phone networks typically support analog communications from phone to radio tower, then either analog or digital lines behind the scenes. Packet data networks support digital communications from modem to tower, but in a packet-switched environment. Each process requires different hardware to connect your traveling computer through the communications network.

Over the past six months, we've used both cellular modems and packet data modems while traveling in a dozen major U.S. cities. We found that for many applications, wireless data communications still have a long way to go. Yet, because each product offered some form of communications freedom, we quickly became dependent on each of the modems we used. Despite the limitations of wide area wireless, we recommend taking a look at these options for specific communications needs.

Users should choose their solutions carefully, however. Weigh the coverage of the wireless network being considered, the type of technology being used (switched-circuit or packet data), associated costs and ease of software integration. We found that cellular voice networks probably are best-suited for file transfers and wider-bandwidth communications needs, while packet data networks work well for electronic mail, as well as transaction-oriented and other client/server-based applications.

In many metropolitan areas, switched-circuit cellular phone networks are almost as common as wired networks. Users are looking increasingly toward cellular voice networks to support data communications as well. Though estimates vary widely, many industry analysts say the most growth will come from data usage of **cellular** networks over the next few years. Hardware vendors are now elbowing their way into this market - many **cellular** phones come with serial ports supporting external modems, and others offer integrated **cellular** modems and fax services.

Cellular networks are so named because their transmitter/receiver towers - **base stations** - operate in overlapping 'cells,' as shown in the diagram on the next page. A **Mobile** Data Intermediate Station (MDIS), typically at a phone company's central office (CO), coordinates communications **sessions** between **base stations** and **cellular** devices. **Base station** and MDIS usually communicate **wirelessly** , while an MDIS is typically wired into a phone company's physical **switch** and then to other land-line communications networks - the standard local and long-distance carriers (telcos).

Federal Communications Commission (FCC) regulations require most major metropolitan areas to have two **cellular** carriers. Each has a standard frequency for **cellular** circuits, know as A and B channels, common to all major markets. When your cellular phone is turned on, it is preprogrammed to search for a signal on your carrier's frequency. Some phones have a preference, looking first for A or B, then falling back to the other. Other phones - A- or B-preferred - will fail to establish a connection if no signal is available on the preferred channel.

If a signal is found on a familiar channel, the phone looks for a regularly broadcast system ID code. The phone asks for verification, and the system rapidly checks the phone's preprogrammed unique electronic

serial number (ESN), telephone number and home network ID. The phone then receives a validation response and waits for a call to be initiated. This process helps to reduce phone fraud (where a bogus phone emulates a valid phone's ESN), but because many phones are user-programmable, it doesn't eliminate the possibility. For this reason, cellular phone users should check their usage bills carefully to ensure that a phantom phone isn't stealing valuable airtime.

If you are in your 'home' carrier's service area, you dial as you would a normal phone or modem. However, we found dialing away from home an adventure. If a call is initiated in a 'foreign' area, a cellular phone or modern may find an unfamiliar system ID on its regular or alternate channel. The usual verification steps are followed - most carriers use a common validation - but the foreign switch attempts to verify by communicating with the home carrier's switch. If the foreign and home carrier have a billing agreement, the user can make calls transparently, with billing routed to the home system automatically.

However, you'll inevitably pay for roaming - in some cases, several more dollars per call. Worse, if no agreement exists between the carriers, you may be asked to provide a credit card number before your call is initiated. FCC rules require the cellular operator to advise you of additional charges before your connection is made, so take a deep breath before dialing. We paid a $12 fee simply for attempting to synchronize modems between Boston and our home system in San Francisco. We also had to give our credit card number to the operator over the cellular call - something we recommend you never do.

Since voice cellular networks currently don't support encryption, anyone with a sophisticated scanner can eavesdrop on conversations. We know of one case in which a cellular phone user found several unauthorized charges, traceable to providing a credit card number on a cellular call.

Assuming all the roaming issues are addressed, initiating a modem connection over a voice cellular network can still be an exercise in frustration. People conversing by voice usually can deal with the static that often accompanies a signal problem, but computers aren't usually as forgiving. Ambient radio frequency (RF) noise from sources such as power lines can affect call quality.

You also will likely have connection problems at the outer edges of any cell, behind a hill or in a downtown area, deep in a building, wherever RF interference is high and where another communications carrier may impinge on your home carrier's signal.

Remember that unless a caller is trying to reach another cellular phone user on the same wireless network, the call typically must be routed through a local and perhaps one or more long-distance phone systems before a connection can be made. These back-end connections can affect call quality. If the cellular network carrier uses older analog switches, there is more of a chance that interference can affect the call, again reducing data performance.

Modern connections are most vulnerable to poor lines when they first attempt to synchronize. Because the negotiation process between modems is inherently dependent on a clean connection, the variability of cellular links can force an extremely low-speed session. Standard modem protocols require modems to agree on the most reliable bandwidth at the time of negotiation, so any interference during modern negotiation can result in a low negotiated rate for the entire call. V.32bis doesn't support a 'fall-forward' process to allow bandwidth to be increased when a call's quality improves.

Two protocols - Microcom Networking Protocol level 10 (MNP10) and ATT/Paradyne's Enhanced Throughput Cellular (ETC) - are designed to overcome these problems. Each is used by different cellular modern manufacturers to make a reliable cellular connection somewhat more likely. Both cellular protocols continually adapt to call quality, increasing and reducing bandwidth as needed. We found that a 9,600-bps connection was frequently possible when dialing from our Microcom Cellular Data Link with integral Mitsubishi phone to another MNP10 modem. Yet even with MNP10, long file transfers could be agonizingly slow as the modems struggle to deal with variable-quality signals. Finally, both modems must support the same protocol - calling other modems without MNP10 support routinely gave us 300-bps connections.

Even with cellular protocol support, you must configure your

application properly. For example, with our analog cellular modem, we found that something as simple as a longer modem negotiation connect time - required for normally noisy cellular lines - had to be added to an application's modem setup string or S registers. As with all modern calls, if you get a bad connection, hang up and dial again, and hope you get a better-quality link.

Because the cellular call handoff process can create other problems, it's important to understand how it works. Each **cellular** carrier may handle passing from one cell's bounds to another's differently. GTE Mobilnet, our carrier in San Francisco, lets the MDIS monitor the signal strength the cellular phone is experiencing. When a phone is in a cell overlap area - this is the area between cells A and B in the diagram on the previous page - the switch receives reports from multiple **base stations** about the phone's whereabouts. If the phone's signal strength falls below a level the MDIS **switch** finds acceptable, the MDIS will determine whether another **base station** can offer a stronger connection.

When **base station** B reports it can support a stronger signal than that of **base station** A, the **session** is passed to **base station** B. Since a single **switch** can handle calls from multiple towers, this may or may not require a changeover in the **switch** handling the call as well. Handoff can even occur when a phone is stationary, if the inevitably variable signal between a phone and a particular **base station** becomes substandard due to interference or if an MDIS determines that a cell is becoming overloaded and needs additional circuits.

Since both towers' signals can be weak in an overlap area, communications performance can drop quickly. Worse, 'call merging' is most likely to occur during a cell handoff. You'll suddenly find yourself listening to someone else's conversation, a problem your communications program won't take lightly. With all these potential pitfalls, you probably wouldn't want to run a large file transfer while speeding down the freeway, moving from cell to cell. You may have better luck with more discrete chunks of data, such as small e-mail messages, but in general it's best to remain stationary during data calls.

Because cellular voice networks use circuit-switched technology, they are not as appropriate for some types of communications. Client/server applications, or data sequences in which smaller amounts of information typically are exchanged, can be more economical over packet-switched networks.

Wireless packet data networks work similarly to their wired counterparts, such as X.25 Value-Added Networks (VANs). Each packet has discrete addressing information, so packets can be routed to a variety of devices quickly and easily. The downside of such networks is that packets must be reassembled and resequenced at some point in the communications process, which doesn't sit well with many applications accustomed to high performance.

There are several nationwide bidirectional cellular packet data networks. RAM Mobile Data, a joint venture between RAM Broadcasting and Bell-South; and ARDIS, a joint venture between IBM Corp. and Motorola, are two carriers with national coverage. Much like cellular voice networks, these carriers use a network of radio towers, transmitting and receiving digitally on specific frequencies. Because of packet overhead, throughput can be less than that of equivalent circuit-switched calls. Since there is no 'call' involved, packet data carriers often charge by the packet, billed to a pre -existing account, though some offer flat-rate charges for monthly use. With special software and wireless modems, such networks can support direct communications between travelers, but users more often will use the gateways to other systems, such as Tymnet (X.25) or the Internet, that packet data carriers usually offer.

Packet-switched wireless communications sequences can be a little more complex than circuit-switched. Like cellular phones or modems, each wireless modem is preprogrammed for a specific network. However, few support the same AT command set interface of cellular modems, so communications applications must be written specifically to support a vendor's proprietary modem command set.

This is true of Ericsson GE Mobile Communications' Mobidem. We regularly use the Viking Express package, which includes an Ericsson/GE Mobidem wireless modem; HP95LX (we now use the 100LX); DOS and Macintosh client software; start-up use of the RAM Mobile Data Network wireless

network; and start-up use of RadioMail, an Internet-based mailbox offering from RadioMail Corp. You pay for monthly access to your RadioMail mailbox, a fee that includes unlimited packets over RAM.

The Mobidem boots much like a cellular phone - it searches for a known signal, then conducts a verification process. The RadioMail application then asks for a connection through the RAM network to a gateway to RadioMail's Internet-based network. The application then uploads and downloads e-mail messages.

We found RAM's coverage to be good, but not perfect. The company claims to cover most major metropolitan areas, and in fact during a spate of travel to Portland, Ore.; Boston; New York; Los Angeles; and several other locations, we had few problems. Two of our editors, however, cannot use their Viking packages because there is no RAM service to Madison, Wis., or Santa Cruz, Calif. The Mobidem has a useful signal strength bar on its LCD display to tell you whether you have a good connection to a tower. Signal strength drops off dramatically in suburban areas, but we've been able to use the Mobidem successfully even at very low signal strengths.

We think RAM's real strength is its support for transparent roaming. Whenever you arrive in a new city, the Mobidem locates a RAM tower instantly and continues exchanging e-mail transparently. ARDIS, in contrast, requires users to dial an 800 number to notify a network operator that the user has arrived in a new city. The ARDIS system in the new area is notified of the user's new location, and the communications process can proceed. However, ARDIS says it will support transparent roaming by the time this article reaches print.

Beyond the carrier itself, you may be dealing with an outsourced mailbox service, such as RadioMail. Such services have their own strengths and weaknesses. Having a solid, reliable mailbox maintained by an outside company means few worries about post office stability. But RadioMail, for example, does not support transparent forwarding. Unless you're willing to set up a rules-based forwarding agent at your own mailbox, you have to use a completely different mailbox from your current one. RadioMail doesn't support file attachments and has a maximum message size of 10 KB.

There are hardware limitations as well. Packet data modems don't allow the freedom supported by their wired counterparts. Each wireless modem typically is keyed directly to a specific customer account. This means that if you lose your wireless modem, as we did on an airplane during our travels, you can't just use another modem with the same account. Both RAM and RadioMail had to be notified of the loss, and a new Mobidem had to be linked to our old e-mail account. We'd much prefer to be able to specify an account number and Personal Identification Number when making a connection through a packet data modem, much like making a standard telephone call.

Finally, the proprietary nature of the software interface between application and wireless modem means you can't use your off-the-shelf communications applications. However, support for a Hayes-compatible AT command set, such as that in a new version of the Mobidem being marketed by Intel Corp., will mean more widespread applications support.

With all the problems inherent in communications through existing voice cellular networks, you'd think cellular carriers would be doing something to improve the process, and indeed they are. The Cellular Digital Packet Data initiative is a group of eight cellular network carriers that have banded together to offer data services over their unused voice bandwidth.

With CDPD, many of the problems we experienced in 'foreign' cities would be removed, allowing transparent roaming and one-stop billing. Although many existing cellular voice network switches can support CDPD with a software upgrade, it will take some time for cellular carriers to perform the upgrades. Many are planning widespread CDPD support later in 1994.

CDPD specifies standards for communications between the subscriber unit (your phone) and the base station, and between the base station and the MDIS. Upper-layer addressing - how your computer will see the CDPD network - will be Internet Protocol (IP).

On the face of it, this means you could exchange information easily with any device on the Internet or via an Internet gateway, but the nature of cellular communications will conspire to make the process difficult. Most existing IP stacks can't deal easily with the inherent delays in cellular packet transmission. You probably won't be able to use your IP

stack over such connections, at least until developers modify their applications.

Alcatel/TITN and other companies are trying to encourage support of the CDPD standards by offering interface software to vendors for integration into equipment at each of the three communications points, and CDPD offers a developer's kit.

You'll also have to buy a new modem to use CDPD. That means the three networks - CDPD, RAM and ARDIS - will each require a different modem. Though an initial lack of standards is a common industry problem, it will keep users confused about what services they can use. We urge wireless communications vendors to work toward standards that will allow some level of interoperability among the wireless packet data networks, giving customers more flexibility.

Despite the limitations we found, we've become highly dependent on wireless connectivity, especially wireless e-mail. Though there are many issues related to ubiquitous availability (many of us are wondering whether we really want to be reachable anytime, anywhere), there is fundamental value in being able to exchange quick, focused bursts of information with many people. We've found that some problems requiring attention from distributed decision -makers can be resolved much closer to real-time, rather than waiting days. It's also tremendously handy to avoid the inevitable problems of hooking into wired networks while traveling. This is still new technology, however, so prepare yourself for a few bumps along the road.

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         (c)2004 Info.Sources Inc

Set     Items   Description
S1    1432168   MOBILE OR PORTABLE OR WIRELESS? OR CELLULAR
S2      33678   BASESTATION? ? OR BASE()STATION? ? OR ACCESS()POINT? ? OR -
             POINT(1W)ACCESS
S3     814976   NAS OR SERVER? ? OR RADIUS OR ISP OR ISPS OR (INTERNET OR -
             NETWORK OR COMMUNICATION? ? OR TELECOMMUNICATION? ?)(2W)PROVI-
             DER? ? OR SWITCH OR SWITCHES OR ROUTER? ?
S4      27726   (SESSION? ? OR TRANSACTION? ? OR CONNECT???? OR TUNNEL????-
             )(3N)(ID OR IDS OR IDENTIFIER? ? OR IDENTIFICATION OR NUMBER?
             ? OR NUMERAL? ? OR CODE? ? OR NAME? ? OR LABEL? ? OR DESIGNAT-
             ION? ? OR DESCRIPTOR? ?)
S5         15   S1 AND S2 AND S3 AND S4
S6         36   S1 AND S2 AND S3 AND SESSION? ?
S7         51   S5:S6
S8         37   RD (unique items)
S9         12   S8 NOT PY=2002:2004
S10        55   S2 AND S3 AND SESSION? ?
S11       141   S1 AND S2 AND SESSION? ?
S12        39   RD S10 (unique items)
S13         8   S12 NOT (S9 OR PY=2002:2004)
S14      5535   AU=(UHLIK C? OR SINHA N? OR CAI Z? OR UHLIK, C? OR SINHA, -
             N? OR CAI, Z?)
S15       114   S1 AND S14
S16         8   S2 AND S15
S17         4   RD (unique items)
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9/5/1 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

05983562 E.I. No: EIP01056814597
Title: Examining mobile -IP performance in rapidly mobile environments: The case of a commuter train
Author: Hemandez, E.; Helal, A.
Corporate Source: Dept. of Comp./Info. Sci. and Eng. University of Florida, Gainesville, FL 3261, United States
Conference Title: 26th Conference on Local Computer Networks LCN 2001
Conference Location: Tampa, FL, United States Conference Date: 20011114-20011116
Sponsor: IEEE; NOKIA; Verizon; University of South Florida
E.I. Conference No.: 58923
Source: Conference on Local Computer Networks 2001. p 365-372
Publication Year: 2001
CODEN: CLCPDN ISSN: 0742-1303
Language: English
Document Type: CA; (Conference Article) Treatment: T; (Theoretical); X; (Experimental)
Journal Announcement: 0201W1
Abstract: Trains travel at speeds ranging from 0 to 80m/s (0 to 288 Km/hr). Providing in-train **wireless** Internet access to multimedia applications will require the use of a **mobile** networking protocol, such as **Mobile** -IP, to achieve uninterrupted connectivity. Although **Mobile** -1P represents a promising solution, its performance under "extreme" mobility is questionable, We simulated a train scenario and identified the limitations of the current **mobile** -IP standard in terms of throughput, handoff, and packet loss of a train moving at different velocities. We investigated the performance of UDP- and TCP- **sessions** , and examined the effect of different **base station** interleaving distances on throughput and packet loss. The results presented in this paper are part of an investigative research into adaptive **mobile** networking protocols in rapidly **mobile** networks. 13 Refs.
Descriptors: Network protocols; **Mobile** telecommunication systems; Packet networks; Telecommunication traffic; **Routers** ; Bit error rate; Computer simulation
Identifiers: Packet loss
Classification Codes:
723.1 (Computer Programming); 723.5 (Computer Applications)
723 (Computer Software, Data Handling & Applications); 716 (Electronic Equipment, Radar, Radio & Television)
72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATION ENGINEERING)

9/5/2 (Item 2 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

05785456 E.I. No: EIP01025533006
Title: Hierarchical cache design for enhancing TCP over heterogeneous networks with wired and wireless **links**
Author: Hu, Jian-Hao; Yeung, Kwan L.; Kheong, Siew Chee; Feng, Gang
Corporate Source: Univ of Hong Kong, Hong Kong, China
Conference Title: IEEE Global Telecommunication Conference (GLOBECOM'00)
Conference Location: San Francisco, CA, USA
Source: Conference Record / IEEE Global Telecommunications Conference v 1 2000. IEEE, Piscataway, NJ, USA,00CB37137. p 338-343
Publication Year: 2000
CODEN: CRIEET
Language: English
Document Type: CA; (Conference Article) Treatment: T; (Theoretical)
Journal Announcement: 0103W3
Abstract: In this paper, we propose a two-layer hierarchical cache architecture for enhancing TCP performance over heterogeneous networks with both wired and **wireless** links. A new network-layer protocol, called New

Snoop, is designed. The main idea is to cache the unacknowledged packets at both **Mobile Switch** Center (MSC) and **Base Station** (BS), thus forming a two-layer cache hierarchy. If a packet is lost due to transmission errors in **wireless** link, the BS takes the responsibility to recover the loss. When a handoff occurs during a TCP connection **session** , the packets cached in MSC can help to minimize the latency of retransmissions due to temporal disconnection. Simulation results show that using New Snoop is significantly more robust in dealing with unreliable **wireless** links and handoffs as compared with the Snoop scheme as well as other existing TCP enhancements. (Author abstract) 5 Refs.

Descriptors: Network protocols; Telecommunication links; Buffer storage; Packet networks; Computer architecture; Computer simulation; Storage allocation (computer); Hierarchical systems; **Mobile** computing

Identifiers: Hierarchical cache architectures

Classification Codes:

722.1 (Data Storage, Equipment & Techniques); 723.5 (Computer Applications)

723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS)

9/5/3 (Item 3 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

05439485 E.I. No: EIP99124948604

Title: Broadband wireless **access network based on mesh-connected free-space optical links**

Author: Acampora, Anthony S.; Krishnamurthy, Srikanth V.

Corporate Source: Univ of California at San Diego, La Jolla, CA, USA

Source: IEEE Personal Communications v 6 n 5 1999. p 62-65

Publication Year: 1999

CODEN: IPCME7 ISSN: 1070-9916

Language: English

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 0002W1

Abstract: Driven by the twin forces of industry-wide deregulation and the explosive demand for Internet access and bandwidth-intensive multimedia services, broadband local access has emerged as one of the key issues in modern telecommunications. In this article we describe a broadband local access network consisting of small, densely spaced packet-switching nodes interconnected by focused free-space optical links in a multihop mesh arrangement. Each **switch** serves a client, which may be an office building (containing, for example, conventional PBXs and LANs), a picocellular **base station** , or both. It is the responsibility of our local access network to economically and reliably extend broadband local access service (perhaps OC-3 or OC-12 for building LANs and PBXs; perhaps several tens of megabits per second to **base stations**) from an infrastructure end office or fiber ring add/drop multiplexer without requiring the installation of new buried optical cabling. Computed is the capacity of the multihop mesh, defined to be the maximum **number** of virtual **connections** which can be delivered to the infrastructure **access point** such that, independent of the traffic distribution among clients, all quality of service guarantees are maintained. (Author abstract) 6 Refs.

Descriptors: **Wireless** telecommunication systems; Broadband networks; Internet; Multimedia systems; Bandwidth; Telecommunication services; Packet networks; Optical links; Fiber optic networks

Identifiers: Broadband **wireless** access networks; Free-space optical links

Classification Codes:

723.5 (Computer Applications); 716.1 (Information & Communication Theory); 717.1 (Optical Communication Systems)

716 (Radar, Radio & TV Electronic Equipment); 717 (Electro-Optical Communications); 723 (Computer Software)

71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING)

9/5/4 (Item 4 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

04447757 E.I. No: EIP96073245776
Title: Call processing model for wireless **network**
Author: Hac, Anna
Corporate Source: Univ of Hawaii at Manoa, Honolulu, HI, USA
Conference Title: Proceedings of the 1996 IEEE International Conference on Personal Wireless Communications
Conference Location: New Delhi, India Conference Date: 19960219-19960221
Sponsor: IEEE
E.I. Conference No.: 44967
Source: IEEE International Conference on Personal Wireless Communications 1996. IEEE, Piscataway, NJ, USA,96TH8165. p 158-162
Publication Year: 1996
CODEN: 85QVA4
Language: English
Document Type: CA; (Conference Article) Treatment: A; (Applications)
Journal Announcement: 9609W2
Abstract: The switching network consists of a **number** of **switches** **connected** by trunks. The **wireless** network is built of **base stations** connected to **switches** . A call from a **mobile** user is set up through a **base station** and a number of **switches** . A **switch** has the input queue for the source and the output queue. The packets are held in the input queue if the output queue in the **switch** is full. The input queue is a buffer that holds the packets if the required bandwidth exceeds the available bandwidth. The **switch** design allows for collision free packet transfer between the input and the output queue. A variable buffer is employed based upon the protocol carried, with a priority technique used to service time sensitive protocols. A multiplexing mechanism is used to allow other protocols to enter the queue during time-outs. This paper proposes a call processing model for **wireless** network. **Wireless** communication can cause congestion in high-speed switching network depending on the volume of calls, their origination and the network architecture. In congested areas where **wireless** services are extensively used, the switching network can become congested. In addition, the quality of **wireless** communication can decrease because of the frequency range that allows for limited number of calls made within the cell. The call processing model allows for evaluation of those limitations and for choosing the best possible solution. (Author abstract) 5 Refs.
Descriptors: Telecommunication networks; **Cellular** telephone systems; Switching networks; **Switches** ; Bandwidth; Network protocols; Multiplexing; Telecommunication services; **Mobile** telecommunication systems
Identifiers: **Base stations** ; **Wireless** network; Channel allocation
Classification Codes:
716.1 (Information & Communication Theory); 718.1 (Telephone Systems & Equipment); 721.1 (Computer Theory, Includes Formal Logic, Automata Theory, Switching Theory, Programming Theory)
716 (Radar, Radio & TV Electronic Equipment); 718 (Telephone & Line Communications); 721 (Computer Circuits & Logic Elements)
71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING)

9/5/5 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online

01745591 ORDER NO: AADAA-I9972918
Adaptive resource allocation to enhance the quality of service in wireless **networks**
Author: Elaoud, Moncef
Degree: Ph.D.
Year: 2000
Corporate Source/Institution: The University of Wisconsin - Madison (0262)
Supervisor: Parameswaran Ramanathan

Source: VOLUME 61/05-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 2675. 132 PAGES
Descriptors: ENGINEERING, ELECTRONICS AND ELECTRICAL ; COMPUTER SCIENCE
Descriptor Codes: 0544; 0984
ISBN: 0-599-78273-0

Most of today's applications and network protocols were optimized to work in a wireline environment where low bit-error-rates, high speed and high reliability are customary. Today's users are increasingly demanding mobility while accessing information on the new generation networks. To provide the needed ubiquity, network solutions must include wireline and **wireless** links.

In a **wireless** environment, communication links have variable high bit-error-rates, intermittent connectivity and limited bandwidth. Due to these characteristics, most of the applications and network protocols perform poorly.

This dissertation presents solutions to enhance the quality of service (QoS) in **wireless** networks. Specifically, the dissertation develops adaptive solutions at the link, transport and application layers to enhance the QoS in a **wireless** environment.

At the link layer, two solutions are developed to dynamically allocate resources based on the QoS requirements of the application and the state of the **wireless** channel. The first solution optimally selects an error-correcting code to encode each packet prior to its transmission. This scheme enhances the bandwidth utilization without degrading the QoS. The second solution selects an optimal target signal to interference and noise ratio for each user's transmission. This scheme increases the system capacity and reduces the user's power without impacting the QoS.

At the transport layer, the dissertation describes an adaptive scheme to improve the end-to-end throughput of TCP connections passing over a **wireless** channel. Specifically, an agent is introduced at the **base station** to perform local retransmissions over the **wireless** channel of all corrupted packets. In addition, when a loss of a **wireless** connection is detected, the agent forces the TCP sender into persist mode.

At the application layer, the dissertation proposes an adaptive solution to increase the throughput of HTTP **servers** . The solution adjusts the lifetime of an HTTP **session** to the **server** 's load based on the history of client behavior. The scheme increases the throughput as seen by the client without jeopardizing the availability of **server** 's resources.

The end result is a set of adaptive solutions which combat the key **wireless** challenges and enhance the QoS received by a **mobile** user.

9/5/6 (Item 2 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online

01731019 ORDER NO: AADAA-I9957840
Motion prediction in mobile / wireless **networks**
Author: Su, William Wei-Lien
Degree: Ph.D.
Year: 2000
Corporate Source/Institution: University of California, Los Angeles (0031)
Chair: Mario Gerla
Source: VOLUME 61/01-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 377. 117 PAGES
Descriptors: COMPUTER SCIENCE ; ENGINEERING, ELECTRONICS AND ELECTRICAL
Descriptor Codes: 0984; 0544

This dissertation concerns the benefits of using mobility prediction to improve connection quality in **wireless** networks.

A **cellular wireless** network consists of fixed based stations connected together by a wired network. **Mobile** terminals in a **cellular** network establish connections through their local **base stations** . There is a limit on the number of users that a **base station** can support simultaneously. Thus, an incoming connection is dropped when there is insufficient bandwidth in the current cell to support it. The **number** of

ongoing **connections** that are dropped can be lowered by rejecting new call requests. One possible method of achieving this is to reserve bandwidth for a **mobile** terminal in a cell prior to its arrival. In this dissertation, reservation schemes that exploit mobility prediction to improve connection quality in **cellular** networks are investigated. Predictions are made on a **mobile** terminal's future location based on its previous history (i.e., the last cell that it has been in). Simulations for the prediction schemes are performed and the results are compared. Also, a cost function is developed to determine the efficiency of the schemes under investigation.

Unlike **cellular** networks, an ad hoc network does not have any fixed communication infrastructure. For an active connection, the end hosts as well the intermediate nodes (which must act as **routers** in this case) are subject to mobility. Since the network topology is dynamic, data routes are subject to frequent disconnections. The research presented here exploits non-random mobility patterns that **mobile** users exhibit. Prediction of link connectivity is done by using Global Position Systems (GPS) and velocity vector information obtained from the **mobile** terminals. The predicted information is used to estimate the future state of network topology and perform route reconstruction pro-actively in a timely manner. In this research, mobility prediction enhancements are incorporated into various routing protocols for ad hoc networks. Simulations for the proposed enhancements are performed and the results are evaluated. The relationship between mobility speed and packet lost rate is also analyzed in this dissertation.

9/5/7 (Item 1 from file: 2)

6938739 INSPEC Abstract Number: B2001-07-6250F-067

Title: Hierarchical cache design for enhancing TCP over heterogeneous networks with wired and wireless **links**

Author(s): Jian-Hao Hu; Yeung, K.L.; Siew Chee Kheong; Gang Feng
Author Affiliation: Dept. of Electr. & Electron. Eng., Hong Kong Univ., China

Conference Title: Globecom '00 - IEEE. Global Telecommunications Conference. Conference Record (Cat. No.00CH37137) Part vol.1 p.338-43 vol.1
Publisher: IEEE, Piscataway, NJ, USA
Publication Date: 2000 Country of Publication: USA 3 vol. xlvi+1898 pp.
ISBN: 0 7803 6451 1 Material Identity Number: XX-2000-01111
U.S. Copyright Clearance Center Code: 0 7803 6451 1/2000/$10.00
Conference Title: Proceedings of Global Telecommunications Conference
Conference Date: 27 Nov.-1 Dec. 2000 Conference Location: San Francisco, CA, USA
Medium: Also available on CD-ROM in PDF format
Language: English Document Type: Conference Paper (PA)
Treatment: Theoretical (T)

Abstract: In this paper, we propose a two-layer hierarchical cache architecture for enhancing TCP performance over heterogeneous networks with both wired and **wireless** links. A new network-layer protocol, called New Snoop, is designed. The main idea is to cache the unacknowledged packets at both the **mobile switch** center (MSG) and **base station** (BS), thus forming a two-layer cache hierarchy. If a packet is lost due to transmission errors in the **wireless** link, the BS takes the responsibility to recover the loss. When a handoff occurs during a TCP connection **session**, the packets cached in MSC can help to minimize the latency of retransmissions due to temporal disconnection. Simulation results show that using New Snoop is significantly more robust in dealing with unreliable **wireless** inks and handoffs as compared with the Snoop scheme (Balakrishnan et al. 1995) as well as other existing TCP enhancements. (5 Refs)

Subfile: B
Descriptors: cache storage; land **mobile** radio; packet radio networks; transport protocols
Identifiers: hierarchical cache design; heterogeneous networks; wired

links; **wireless** links; two-layer hierarchical cache arch; two-layer hierarchical cache architecture; TCP performance; network-layer protocol; New Snoop; unacknowledged packets; **mobile switch** center; **base station** ; two-layer cache; transmission errors; handoff; latency; temporal disconnection; unreliable **wireless** inks
Class Codes: B6250F (Mobile radio systems); B6150M (Protocols)

9/5/8 (Item 1 from file: 233)
DIALOG(R)File 233:Internet & Personal Comp. Abs.

00642855 01IK09-115
Wireless **gets ready to roam -- New tools promise to let users move among different networks**
Drucker, David
InternetWeek , September 10, 2001 , n877 p17, 1 Page(s)
ISSN: 0746-8121
Company Name: Ecutel
Product Name: Viatores
Languages: English
Document Type: Articles, News & Columns
Geographic Location: United States
Reports that advances in **wireless** infrastructure and supporting technologies are expected to give corporations better reason to move to **wireless** . Says that software from Ecutel lets users move from one type of **wireless** or wired network to another without interrupting application **sessions** or security controls. Indicates that Ecutel plans to ship a module to its Viatores **wireless** roaming platform. Adds that the new software, which runs on an in-house **server** and client device, lets users move between both **wireless** Wide Area Network (WAN) **access points** and Local Area Network (LAN) segments without having to reauthenticate or restart applications. Declares that carriers are working on creating **wireless** peering arrangements that would let users of **wireless** data services move among different carriers' coverage zones. Includes a sidebar. (EPE)
Descriptors: **Wireless** Networking; Infrastructure; Remote Computing; Wide Area Networks; Local Area Networks; Client- **Server** Computing; Online Systems
Identifiers: Viatores; Ecutel

9/5/9 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus

04390064 JICST ACCESSION NUMBER: 00A0020889 FILE SEGMENT: JICST-E
An Implementation of CDMA based On Board Switch **for Many to Many** Connection **by** Code **Division Switching Method.**
HASANUDIN H (1); ONOZATO Y (1); YAMAMOTO U (1)
(1) Gunma Univ., Gunma, Jpn
Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report (Institute of Electronics, Information and Communication Enginners), 1999, VOL.99,NO.367(CS99 97-108), PAGE.7-12, FIG.9, REF.7
JOURNAL NUMBER: S0532BBG
UNIVERSAL DECIMAL CLASSIFICATION: 621.396 621.395.33/.38
LANGUAGE: English COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: Routing in CDMA forward link code channel using orthogonal codes has been investigated as Code Division Switching Method(CDSM) in **wireless** network. The throughput of the simulatneous transmission number in tree based CDMA reverse link and the successful transmission probability of CDSM gives the way to make many to many connection in the CDMA system. In this paper, we present an implementation of CDMA based On Board **Switch** for many to many connection by CDSM. The goal

of this paper is to complete the switching for many to many **connection** using **code** division method by adopting CDMA based On Board Switching into **Base Station** (BS) in multi beam **wireless** communication. Many to many protocol including orthogonal multi beam address is also discussed. We arrange the optimum capability of the switching for many to many connection using CDSM by considering the reverse link, the BS and the forward link. Performance evaluation is given as the successful transmission probability of the transmission. (author abst.)
DESCRIPTORS: CDMA; mounted communication apparatus; orthogonal code; communication exchanging; routing; coding(signal); signal multiplex; **cellular** communications; radio transmission
BROADER DESCRIPTORS: multiple access communication; communication system; method; communication apparatus; equipment; code; exchange; switching; selection; communication operation; operation(processing); modification ; signal processing; treatment; multiplex; **mobile** communication; telecommunication
CLASSIFICATION CODE(S): ND08010L; ND11020E

9/5/10 (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

06526367
Innomedia chases datacomms success
ASIA: NEW PRODUCTS LAUNCHED BY INNOMEDIA
Computerworld (XCK) 02 Oct 1997 P.4
Language: ENGLISH

Singapore-based Innomedia has launched several new communications/multimedi a products in Asia. The products are Infotalk, Infoview, Infoblazer and Infowave 9000. The S$ 454 Infotalk is a telephony device that permits users to make long distance calls via the Internet. Users only pay local connecting charges to their **Internet** Service **Providers** (**ISP**) when making a long distance call through the Internet. Infotalk uses patent-pending compression and decompression technology for data conversion from voice and data transmission over the Internet. Users can bypass the PC by plugging Infotalk between their phone and wall phone jack. Infoview costs from US$ 499 (S$ 758) to US$ 549 (S$ 834) and supports the global ITU-T H.324 standard. It offers real-time video conferencing over analogue telephone lines which allows on-screen **sessions** recording via a VCR and is used with any standard television. Infoblazer ISDN terminal adapter offers better Internet/remote access, PC-to-PC communication services and retails at US$ 299 (S$ 454). It includes mini-PABX features for voice management over standard telephone lines, as well as IDSN modem functionality for enhanced data access. Finally, the US$ 249 (S$ 378) Infowave 9000 is a 900MHz **wireless** voice and data communications device that comprises of a **wireless base stations** pair. Infowave is capable of offering 85Kbps data transmission speeds at 250 m distances.

COMPANY: INTERNET; INNOMEDIA

PRODUCT: Computers & Auxiliary Equip (3573); ISDN Equipment (3661DN); Telecommunications (4810); Communications Eqp ex Tel (3662); Telecom Subscriber Equipment (3661TS); Communications Equipment (3660);
EVENT: Product Design & Development (33);
COUNTRY: Singapore (9SIN); Southeast Asia (92T); Eastern Asia (92E);

9/5/11 (Item 1 from file: 256)
DIALOG(R)File 256:TecInfoSource

00133176 DOCUMENT TYPE: Review

PRODUCT NAMES: 802.11b (845426); Microsoft Windows XP (043281); Wavelink Mobile **Manager 5.0 (062634); Cisco Aironet 340/350 (793094); Intel PRO/** Wireless **(036013**

TITLE: Tightening WLAN security: Solutions that provide stronger...
AUTHOR: Garcia, Andrew
SOURCE: eWeek, v18 n34 p45(2) Sep 3, 2001
ISSN: 1530-6283
HOMEPAGE: http://www.eweek.com

RECORD TYPE: Review
REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

Microsoft Windows XP, Wavelink's **Mobile** Manager 5.0, Cisco Systems' Cisco Aironet 340/350, and Intel Pro/ **Wireless** 2011 **Access Point** in a discussion of solutions that provide stronger authentication and centralized management to make the 802.11b standard more attractive and doable for business use. For instance, Microsoft is backing 802.11b strongly and now has a sitting chair in the WiFi consortium. Microsoft has added many **wireless** features to the up and coming Windows XP operating system (OS), including driver support and client association tools. However, the most compelling feature is integration of the still under development 802.1x standard, which attempts to provide user-authenticated network access control. 802.1x is still being considered by the Institute of Electrical and Electronics Engineers (IEEE) for approval. However, the Windows XP client supports Extensible Authentication Protocol (EAP), which allows dynamic, **session** -specific **wireless** encryption keys, central user administration with third party **RADIUS** (Remote Authentication Dial-In User Service) **servers** , and 'mutual authentication between client and AP (**Access Point**) and AP to **RADIUS server** .' Windows XP is also compatible with EAP-TLS (EAP-Transport level Security) for use of digital certificates for authentication. Cisco, an early provider of a **wireless** -ready **RADIUS server** , provides Cisco ACS, which can be used with Cisco's proprietary Lightweight Extensible Authentication Protocol implementation and is interoperable with 802.1x.

COMPANY NAME: Vendor Independent (999999); Microsoft Corp (112127); Wavelink Corp (610305); Cisco Systems Inc (465828); Intel Corp (097551)
SPECIAL FEATURE: Screen Layouts
DESCRIPTORS: Computer Security; Encryption; IBM PC & Compatibles; LANs; Network Administration; Network Software; Remote Network Access; Wi-Fi; Windows XP; **Wireless** Networks
REVISION DATE: 20030327

9/5/12 (Item 2 from file: 256)
DIALOG(R)File 256:TecInfoSource

00130356 DOCUMENT TYPE: Review

PRODUCT NAMES: NetMotion Mobility Solution 2.0 (050113)

TITLE: Wireless **Works: NetMotion makes the difference in** wireless **networks**
AUTHOR: Franklin, Curtis
SOURCE: InternetWeek, v860 p40(1) May 7, 2001
ISSN: 0746-8121
HOMEPAGE: http://www.internetwk.com

RECORD TYPE: Review
REVIEW TYPE: Review
GRADE: A

With NetMotion **Wireless** 's NetMotion Mobility Solution 2.0, 'users can roam across the entire enterprise while administrators secure and manage **wireless** connections as easily as they can deal with traditional cable ports.' Features are compelling, including an always-on connection for the user, irrespective of where they roam inside the organization. Network

administrators can also set time limits for how long a computer can be out of contact with the network before the network **session** is shut down, ensuring adequate security. Administrators benefit from detailed reports on the activity of **wireless** devices, improved connection security, and increased ease of implementation for policies and procedures in the network. If a business has more than one or two **wireless** **access** **points** in a network and more than a few **wireless** network users, NetMotion Mobility Solution should be part of its network infrastructure. NetMotion Mobility operates by fooling the network infrastructure into intercepting login traffic from client to **server** . NetMotion Mobility **server** then logs into the network as the client and manages traffic from client to **server** via passthrough. Therefore, it can deal with 'Are you there?' traffic whether the client remains connected to the network or not. 'If there is traffic back to the client that can't be delivered, NetMotion Mobility stores the traffic until the client re-establishes the link and then picks up as before.'

17/5/3 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online

01918638 ORDER NO: AADAA-I3072415
Distributed computing based on wireless **ad hoc networks**
Author: **Cai, Zhijun**
Degree: Ph.D.
Year: 2002
Corporate Source/Institution: Texas A&M University (0803)
Chair: Mi Lu
Source: VOLUME 63/11-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 5396. 165 PAGES
Descriptors: ENGINEERING, ELECTRONICS AND ELECTRICAL
Descriptor Codes: 0544
ISBN: 0-493-92074-9

An ad hoc network is a self-organized and distributed entity, consisting of n **mobile** stations (MSs) without the coordination of any centralized **access point** . How to efficiently support the data communications over ad hoc networks is a very challenging and timely problem. In my research, the following key issues have been analyzed and discussed: network initializations, channel access methods, resource allocation, Quality of Service (QoS), and routing.

Initialization is one of the fundamental tasks to set up an ad hoc network, which involves assigning each of the n MSs a distinct ID number from 1 to n in a distributed manner. Two algorithms are proposed for initializing an ad hoc network with carrier sensing capability. Both algorithms are obtained based on optimizing some key parameters to minimize the total time required to complete the initialization. Both theoretical analysis and simulations indicate that the proposed initialization algorithms outperform the existing methods. Then the channel access methods for the broadcast traffic are analyzed and discussed. We propose the topology-transparent broadcast scheduling and randomized broadcast channel access. Both are compared with the existing methods, which illustrates their advantages. For the resource allocation and QoS, a novel distributed resource allocation algorithm has been suggested to dynamically allocate the resource to the MSs. Moreover, a distributed end-to-end bandwidth allocation scheme has been developed to support the QoS in ad hoc networks, which has been shown to gain a significant performance margin compared with the existing algorithms. Another important issue for ad hoc networks is routing. A routing method utilizing the multi-user detection technology has been proposed to minimize the average transmission power.